

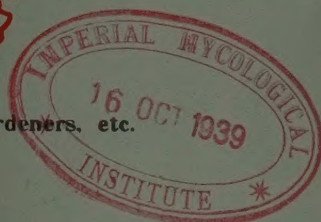
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Vol. XL. No. 8

AUGUST 5th, 1939

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WE WANT TO:

Supply your Orchard Requisites.

Assist in Marketing your Crop.

Apple Publicity throughout the States

"HECTOR THE HERO" AND "DOPEY DAN" IN QUEENSLAND.

A determined effort is being made throughout Queensland, New South Wales, Victoria and Western Australia, to push Apple and Pear sales and to educate the public as to the health-giving properties of these fruits. The Publicity Committee in Queensland is visiting schools and distributing Apples. On a recent visit to the Windsor State School, Dr. Noel Gutteridge (chairman of the Queensland Nutrition Council) produced what promise to be two rivals of "Mickey the Mouse," namely, two silky-haired white rats, "Hector the Hero" and "Dopey Dan." "Hector" and "Dan" created a great sensation, and were enthusiastically "taken up" by the Queensland press. They were used by Dr. Gutteridge as an object-lesson of correct and incorrect diet. Hector fed on milk, Apples, brown bread, butter, cheese, lettuce and meat, is plump and active, while Dan, who had lived on white bread and jam, margarine and tea, with milk and sugar, was thin and emaciated. When departing

in their large glass jar, they received something that resembled a Royal farewell.

New South Wales and Victoria are also concentrating on the distribution of Apples to schools, kindergartens and creches. Western Australia has recently issued a 16-page booklet giving recipes and health hints on Apples. They are also visiting schools and giving Apples and talks on health.

A limerick competition is being conducted and broadcasts arranged: talkie slides are being shown at various theatres, cooking demonstrations and displays are arranged. They also propose holding a handwriting competition.

:: :: ::

In conjunction with the Orchardists and Fruit Cool Stores' Association the Victorian Publicity Committee will have a stand in the Horticultural Hall at the Royal Agric. Show in September.

ALIEN IMMIGRATION.

Though few Jewish refugees have settled in the Liverpool (N.S.W.) district, the number of Italians taking over market gardens is steadily increasing.

Many of the newcomers are experienced farmers, and in some cases land has been reserved for them before their departure from Italy.

Among other foreign farmers in

the Liverpool district are Germans, Spaniards, Russians, Chinese, Czechoslovakians, and Estonians.

PUBLICATIONS RECEIVED.

We have received two bulletins from the New York State Agricultural Experiment Station, Geneva, N.Y., on the preparation of Rhubarb juice and making Maraschino Cherries at home.

CLEAN UP THE ORCHARD.

Attend to Sanitation Now.

Orchardists should endeavor to rid their property of codling moth now. Orchard sanitation is a very important point in pest control.

All bandages should be removed from the trees, if of twill sacking they should be dipped in boiling water for at least three minutes or burnt. Corrugated strawboard should be destroyed immediately by means of a fire bucket.

The trees should be examined carefully and all cavities, knot holes, breaks in the bark along the limbs, trunk and crown of each should be carefully examined for over-wintering larvae.

Remove all broken limbs, dead knots and loose scaly bark, and burn all the rubbish. Deep knot holes, etc., may be filled with a mixture of sawdust and tar, and later painted over with a heavy paint. Heat the tar to a watery consistency, and add the sawdust until the whole is about the density of putty. A very thick white paint, applied neatly with a small brush to shallow cavities, makes them less attractive to larvae. Do not allow the paint to run down the limbs and trunk.

Clean up the packing shed by burning all old useless cases, immerse cases for further use in boiling water for three minutes.

Do not forget the grader, packing benches, corners of bins, joins around the canvas bottoms, padding, buffers, etc., bags used for handling culls, windfalls, etc. Clean and scrub as much of these as possible.

SHOWS TO COME.

Brisbane Royal Show, Queensland—August 14-19.

Royal Melbourne Show, Victoria—September 21-30.

Lemnos, Victoria—October 11.

BLIND WORKERS' ASSOCIATION.

The Blind Workers' Association appeals to all socially minded citizens for their financial assistance to enable the achievement of special legislation to provide for State control of the Royal Victorian Institute for the Blind, with complete financial maintenance by the Government without charitable appeal to the public.

In response to an appeal published in "The Fruit World" on May 5, 1939, it is with gratitude that the Blind Workers' Association of Victoria acknowledges the following contributions, and in doing so recommends readers to patronise these firms who have so readily responded to the call of the blind.

Wholesale Fruit Merchants' Association	
Association	£5 5 0
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Further donations addressed to the Blind Workers' Association, 94 Elizabeth-street, Melbourne, will be acknowledged through these columns.

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Contents

Page	Page
Illustrations.	Export and Commercial News 28
Limbs of Pear Tree Killed by San Jose Scale 5	Fruit Juices 9, 10
Corrugated Moulded Fruit Pads 10	Fruit Packing, Improved . . . 10
Metropolitan Markets, Perth, W.A. 13	Goulburn Valley News and Notes 19
Mt. Barker Co-operative Packing Shed, W.A. 15	Letter to the Editor 4
Plum Trees in the North East of Victoria 19	Market Grower 27
Grapefruit produced in Australian Citrus Groves 21	Market Notes and Prices . . . 33, 34
Glasshouses for Tomato Culture 27	Mid-Murray Notes 25
Export of Plums (2 illus.) . . . 29	Motor Notes 34
Dried Fruit Stacked for Fumigation 32	News in Brief 5
Plan of a Laying Shed 35	News of the Month 3
Subjects.	New South Wales 21, 22
Apple and Pear Board, Australian 16	Obituary 4
Canned Fruit News 18-20	Pears, "Black End" in 6
Celery, Pink Rot in 24	Personal 3, 4
Citrus Notes 36	Plums, Export of 29
	Poultry Notes 35
	San Jose Scale 5
	South Australian News and Notes 23-26
	Tasmanian News and Notes . . 17
	Victorian News 7, 9
	Western Australia 11-16

Index to Advertisers

Page	Page
Adelaide Fruit Merchants . . . 32	Lightning Fruit Grader Co. . . Cover i.
Bingham, D. W., & Co. Pty. Ltd. 20	Liverpool, Port of 26
Blyth Chemicals Ltd. 2	Margetson & Co. Ltd. 24
Brisbane Fruit Merchants . . . 33	Melbourne Fruit Merchants . . 30
Brookes Lemos Ltd. 20	McLean, N. N., Pty. Ltd. . . . 27
Brunning, John, & Sons 19	Monro, Geo., Ltd. 20
Chilean Nitrate 9	Neptune Oil Co. Ltd. 4
Clensel Products Pty. Ltd. . . . 10	Nightingale, A. G., & Co. . . . 8
Consolidated Fibre Products . . 14	Nitrogen Fertilizers 12
Cottier, E. R., Pty. Ltd. 18	Nobelius, C. A., & Sons Pty. Ltd. 18
Davis Gelatine 25	"North Tas." 10
Electrolytic Refining & Smelting Co. of Aust. Ltd. 8	Producers' Co-op. Dist. Society . 30
Excelsior Supply Co. Pty. Ltd. . 12	Quick Manufacturing Co. . . . 18
F. & M.G. Society 23	Ronaldson Bros. & Tippet Pty. Ltd. 13
Geeves, Hedley, Pty. Ltd. . . . 33	Rosen, L. P., & Son 15
Gerrard Wire Tying Machines Co. Pty. Ltd. 11, 25	Royal Melbourne Show 14
Goodman, C. J. 17	Russell & Co. 6
Harvey, Daniel, Ltd. 8	Silbert, Sharp & Bishop Ltd. . . 23, 24, 27
Hassett, E., & Sons 22	"Spregan" Colloidal Liquid Sulphur 24
Hillman & Keogh 16	Southampton, Port of 28
Howard, R. G., & Co. 24	Stokoe Motors Pty. Ltd. 10
Hull, Port of 10	Sydney Fruit Merchants 31
International Harvester Co. of Aust. Pty. Ltd. 18	Trehwella Bros. Pty. Ltd. . . . 16
Jaques Pty. Ltd. 5	U'Ren, Geo. A. 28
Koerner, F. G. 22	Vacuum Oil Co. Pty. Ltd. . . . 6
Leggo, Victor, & Farmers Ltd. . 7	Werner, R., & Co. Pty. Ltd. . . 36
	Wholesale Fruit Merchants' Association of Victoria 34
	Wilson, Herbert, Pty. Ltd. . . . 14

NEWS OF THE MONTH.

APPLE AND PEAR BOARD.

Export and Local Marketing.

THE Australian Apple and Pear Board is now getting into its stride. At its meeting at the end of July Mr. H. A. Baker, B.Comm., M.M., was appointed Secretary; at the next meeting there will be a conference with the Australian Apple and Pear Council to arrange for the taking over by the Board of the matters previously handled by the voluntary Council.

While matters relative to export can be attended to as the business flows on year by year, there still remains the question of educational publicity to increase the sale of Apples and Pears in Australia.

In this connection it is hoped that the problem which arose in South Australia can be adjusted. Apparently the principle of a tax collection for publicity is approved, but the method of collection appears to be the problem. Perhaps on reconsideration and the devising of the system of entries the local problem can be adjusted. This is important, as although early difficulties may also be expected in the other States, there is on the whole a consensus of opinion that the matter of publicity must be proceeded with, and that the Sales Tax method is the most direct and effective.

The need was never greater for a continuous campaign to be conducted to increase the consumption of Apples and Pears in Australia. We have witnessed the difficulties in front of the industry in disposing of the crops, even when at least three States had light crops; what would have been the situation had there been even average crops in all the States, or, to state the position in another way, what can be expected when uniformly heavy crops are harvested?

With the knowledge that export markets are limited, we must naturally turn to the development of home markets. There is this to be borne in mind: Our nutrition experts, doctors and dentists, affirm that Australians are not eating enough of these fruits for normal health.

Sufficient data has been compiled to enable educational publicity to be effectively conducted. State Committees too have demonstrated their ability to tell the fruit and health story to school children and adults.

It now remains for the whole programme to be tackled in a comprehensive manner. The Apple and Pear Board, which will administer the funds, is alive to the situation.

Growers are urged to give quiet and favorable consideration to the foregoing. It is undoubtedly the most important matter in front of the industry to-day. Remembering that by the collection of this tax of 1d. per case there are all the possibilities

of stabilising the industry, there should be a ready response from growers. The Publicity and Research Act is on the Statute Book, and by proclaiming the date of collection to commence, say, on the 1st January, 1940, the machinery will be set in motion.

The foundations for a publicity campaign have been well laid, and it is also true to say that only the fringe of the enterprise has as yet been touched. By adequate planning there should be sufficient educational propaganda issued to achieve the beneficial results of benefiting the health of the community and of stabilising the Apple and Pear industry.

W.A. Apple Sales Board.

THE ANNUAL REPORT of the W.A. Apple Sales Board, which is published in this issue, makes very interesting reading; due credit must be given to the organisers. That the conception is sound as is proved by the success of the plans in operation. Though a voluntary body, orderly marketing has been largely achieved, and the Committee is working on a long range policy in publicity. The difficulties are mostly with those who operate in marketing outside of the Committee's recommendations. Efforts are being made to correct this position.

The Apple Sales Board deals only with cool stored Apples; good service is also rendered in the handling of the Bartlett Pear crop.

As regards cool stored Apples the Committee obtains accurate returns not only of the quantities in store, but of the varieties, and information is also obtained regularly as to the way the fruit is keeping in store. Being in possession of the full facts in regard to varieties and quantities stored, and also knowing the normal consumptive capacity of the markets the Committee is in a position to advise growers definitely as to marketing.

The expenses are borne by the co-operative bodies from which the Board itself is constituted. The W.A. Apple Board and its supporters are deserving of the heartiest commendation. May their example be followed by others.

PERSONAL.

Dr. Joan Hearman, of the Griffith (N.S.W.) Research Station, recently visited Mildura and the South Australian Citrus-growing areas in her appreciated studies in citriculture. Valuable results are expected.

Mr. R. A. Boyle, M.Sc., created a very favorable impression among members of the River Murray (S. Aust.) Agricultural Bureaux when speaking on the subject of nitrogen

PERSONAL—(Continued).

fertilizers. Mr. Boyle stresses the need for calculating the unit value of fertilizers.

:: :: ::

Mr. G. F. Birks, managing director of Potter & Birks Pty. Ltd., distributors of Borax Consolidated, left Sydney by the "Mariposa" on July 22 on a health trip to the United States.

:: :: ::

At the recent annual meeting of the Ardmona Fruitgrowers' Association, the following office bearers were elected:—Mr. W. Young (President), Messrs. J. D. Simson and J. Pearson (Vice-Presidents), S. P. Cornish (Secretary). The delegates to Northern Victoria Fruitgrowers' Association are Messrs. V. R. McNab, J. D. Simson, H. Lenne and J. Pearson.

:: :: ::

Mr. J. L. Provan, B.Ag.Sc., Senior Horticultural Instructor, Vic. Dept. of Agric., will judge the deciduous and citrus sections in the Brisbane Royal Show, Queensland (August 14-19). In order to fulfil this engagement in the midst of many duties, Mr. Provan will fly both ways.

Mr. J. McDonald has been appointed works manager of the Ardmona Cannery, Victoria, in succession to Mr. A. Grant, who has gone to Leeton, N.S.W., in a similar capacity.

:: :: ::

Mr. F. J. Pick has been appointed Secretary to the Shepparton (Vic.) Fruit Preserving Co. Ltd. in place of the late Mr. A. E. Pearce.

:: :: ::

Mr. D. J. Sutcliffe, Hon. Asst. Sec. of the W.A. Apple Sales Board is commended in the Board's annual report for his excellent services.

:: :: ::

Mr. H. A. Baker, B.Comm.M.M., has been appointed Secretary to the Australian Apple and Pear Board. He brings with him a wealth of administrative and general experience, and a genial personality. Hearty good wishes are extended to Mr. Baker. He will be an acquisition to the Apple and Pear industry.

OBITUARY.

The death recently occurred of Mr. Thomas E. Eagle, of Harcourt, Victoria. Born at Pine Lodge, Mr. Eagle was the son of the late Mr. and Mrs.

William Eagle, whose orchard was one of the first in the area. As well as having some considerable success on his own account, Mr. Eagle was a keen gardener, and a fine example as a citizen and an enthusiastic follower of sport.

:: :: ::

Mr. Joseph Tainton, a pioneer orchardist, Burwood-road, East Burwood, Victoria, died recently, aged 90 years. Mr. Tainton left England when he was three years old, and settled in New South Wales. We extend our deepest sympathy to his family.

:: :: ::

It is with regret that we learn of the death of Mr. W. Honeybun (Senr.), orchardist, of Doncaster, Vic. Mr. Honeybun was struck by a truck while walking along Doncaster-road, Balwyn, Vic., and died after admission to St. Vincent's Hospital.

:: :: ::

We regret to record the passing of Mr. B. J. Monro, youngest of the three brothers of Messrs. Geo. Monro Ltd., of London, England, who died on July 9 after a long illness.

Another well-known figure in the fruit industry has just passed away in the person of Mr. W. Lipscombe, of the Heatherlea Orchard, Croydon, Vic., at the age of 87 years.

The late Mr. Lipscombe was a familiar figure at Fruitgrowers' Conferences, and his advice was always esteemed. At the Heatherlea orchard there are about 100 acres of Apples and Pears and the property is complete with its own cool store. Mr. Lipscombe was the first President of the Croydon Cool Store Trust. He resigned from the Trust only a week before he died. Apart from his local interests, Mr. Lipscombe maintained his association with the Australian Fruit and Produce Co., Sydney. He was widely esteemed: there was a large attendance at the funeral. He leaves three daughters and two sons.

:: :: ::

It is with regret that we learn of the death of Mr. A. E. Frankling, of Harcourt, Victoria, at the age of 73 years. Resigning after many years' service as Assistant Stationmaster, he took over the well-known orchard, Mount View, which he carried on with great success. He devoted a great deal of his time to district affairs, being an ex-councillor of the Maldon Council, a director of the Harcourt Fruit Growers' Association for 12 years, and a director of the Harcourt Cool Stores for 15 years.

Letter to the Editor

TASMANIAN APPRECIATES
VICTORIAN ENTERPRISE.

The Editor,
"Fruit World,"
Sir,

Having just returned from a very pleasant holiday in Victoria, I should like through your columns, to say how much I appreciated the courtesy extended to me during my visit by the Horticultural-Division of the Department of Agriculture.

Through their extension service, I was able to visit many Fruit-growing districts, and was much impressed with the close contact the District Supervisors have with the growers and the fine co-operative spirit which is maintained.

While visiting the Southern Victorian Pear Packing Co., notices were being distributed to members through the supervisors, of the prevalence of "Green Peach Aphis," recommending the most effective control measure to be taken.

On a large orchard in the Red Hill district, a three year spraying programme was being conducted, and surrounding orchardists were showing a keen interest in the results obtained. Although similar work has been undertaken by our own Department, for some years, I realised that Victorian growers are just as alive to the importance of sound, clean fruit as we are.

Marketing.

This is a matter which is of course, vital to all men who derive their living from the land. Victorian growers are indeed fortunate to have that huge Melbourne Market available to them, and my impression was that other States would find it difficult to establish themselves, with any real security as I understand that in the Mornington district alone they have reached their million mark. I am convinced that Tasmanian growers will have to continue to look for fresh markets beyond Australia.

That the Southern Victorian Pear Packing Co. are fully alive to the importance of Overseas markets, is shown by the fact that they pay their manager a substantial salary to look to their interests on the English Market.

I remain,
ERIC SHOOBRIDGE.
Cobbs Hill, Bridgewater, Tasmania,

As Spraying is a Necessity —then use the World's Best—

NEPTUNE SPRAYS

The better quality of NEPTUNE Sprays is always obvious by comparison with others. NEPTUNE Sprays conform to the highest standards, and they are consistently uniform in strength and quality. Successful orchardists recommend them. Try them yourself and prove that they're better!

Neptune White Spraying Oil (SUMMER SPRAY)

NEPTUNE PREPARED RED
SPRAYING OIL
(“A,” “C,” or Heavy Base)

NEPTUNE PALSOL
(Prepared Pale Oil)

NEPTUNE CLARIFOL
(Winter White Oil)

NEPTUNE LIME SULPHUR
SOLUTION
(Clear, amber-coloured, free
from sludge)

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BLUESTONE

CHEMICAL SULPHUR
(23871)

BERGER'S ARSENATE
(Powder or Paste)

COLLOIDAL LEAD
ARSENATE

ENGLISH BLUESTONE
SNOW

GENUINE BLACK
LEAF 40

NEPTUNE LIME
POWDERED SULPHUR

COPPER SPRAY

NEPTUNE SPRAY
SPREADER



NEWS IN BRIEF

Canned freestone Peaches from Canada are winning public support because of their superior flavor.

The rapid development of the pure fruit juice trade is revealed in the fact that nearly 3,000,000 cwt. of Tomato juice and nearly 4,000,000 cwt. of fruit juices are now produced in U.S.A. The most popular are Tomato and Pineapple juices.

About half the world export in canned fruit comes from U.S.A. Australia's exports of canned Peaches, Pears and Apricots increased by 83 per cent. in the five years ending 1937.

Empire imports of canned fruits have increased in recent years, despite foreign competition.

British Malaya provides 90 per cent. of the U.K. imports of canned Pineapple, but for most kinds of canned fruits, U.S.A. is still the largest supplier (51 per cent. of the total in 1938).

British imports of Japanese canned Mandarin Oranges rose from 80,000 cwt. in 1934 to 263,000 cwt. in 1938. The canning of fruit and other foods is rapidly developing in the United Kingdom.

New Zealand farmers who visited the River Murray fruitgrowing areas, were greatly impressed by the progress in these progressive irrigation areas and the very evident spirit of co-operation displayed there.

The Vegetable Growers' Association of Victoria recently moved that foreign immigration should be restricted until our own unemployed have received employment. It is felt that under present conditions, foreigners are lowering the Australian labor standard.

In Tasmania, State School fruit-packing classes are being conducted in 45 centres. Nearly 1,000 children and adults receiving instruction. A marked improvement in the grading is noticeable.

More oil spraying is being carried out in Tasmania in the dormant period this season than last. The Chief Horticulturist (Mr. P. H. Thomas) states

that the later oil is applied prior to actual bud-burst, the better the kill of eggs obtained.

The necessity for orchard hygiene to prevent the over-wintering of the codling moth is strongly recommended by the N.S.W. Dept. of Agriculture.

Additional central spraying plants are being installed in Tasmania, and more pipe lines are being added to established plants.

No fewer than 170,000 boxes of Apples and Pears were packed in the central packing shed of Mount Barker, W.A., Co-operative Ltd., in the 1939 season, thus establishing the largest output of any in the Commonwealth. In addition, 30,000 cases were packed at the Kendenup branch.

The "black end" of Pears which has been showing up in some southern Victorian orchards, is believed by the Dept. of Agriculture to be non-infectious, but due to incompatibility of stock and scion. The Department is investigating the problem from the aspect of the stock-scion relationship.

A statistician has been at work, calculating the number of Apples and Pears packed in the Mt. Barker (W.A.) packing house in the 1939 season. The total given is 28,000,000 Apples.

Recent research shows that the United Kingdom is the largest importer of citrus fruits.

Although the United States of America produces nearly one-half of the world's citrus crops, not more than 10 per cent. of the annual production is usually exported.

It has been discovered that the breakdown in citrus in the U.S.A. this year is Oleocellosis or Rind Oil Spot, due to burning by the natural oil of the fruit itself. This has become apparent because of the foggy weather.

M.I.A. growers feel that there is an urgent need for the establishment of further research plots in the Yanco and Mirrool areas.

Mirrool (N.S.W.) area growers are holding a meeting to discuss means of processing and storing their fruit in the coming season.

San Jose Scale

Winter Spraying for Control.

SAN JOSE SCALE is an injurious pest of deciduous fruit trees, and, in addition to attacking most of the common pome and stone fruits, is occasionally recorded from eucalypts and wattles, states the N.S.W. Department of Agriculture Bulletin. Several instances of severe infestations in hedges of tree lucerne about orchards have also been noted.

The scales occur on the trunk, limbs, twigs, and occasionally on the fruit, and once it is established it usually increases very rapidly unless effective control measures are adopted. In advanced cases the bark assumes a greyish scurfy appearance and the tree stops growing and may be killed.

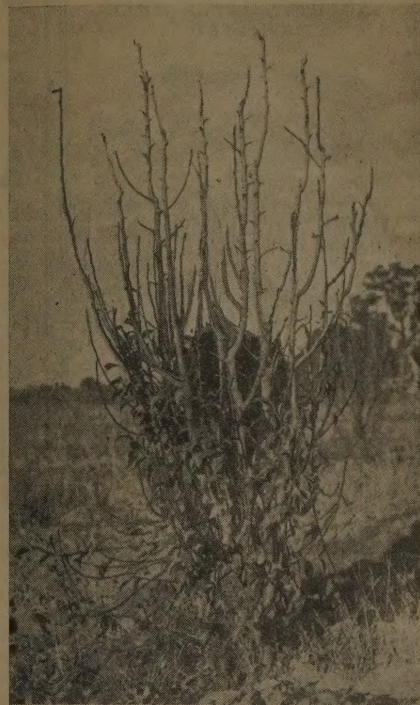
The development of the scales is comparatively rapid during the Summer and a new generation of scales may be produced in six weeks. A number of generations is produced each year, and as each female scale may give rise to as many as 400 young, the increase in numbers may be very rapid. Development slows down during the cooler months and the Winter is usually passed by the scales in the immature stages.

Miscible red oil 1 gal. in 20 gals. of water is recommended for the control of this pest, and is applied during the dormant period. Lime-sulphur applied at Winter strength has also given fair control, especially when applied as late as possible before the buds burst in the Spring. In the case of a severe infestation a double application may be made, using red oil in July followed by lime-sulphur in August. An interval of several weeks must elapse between these sprays, or injury to the bark and buds may result.

Semi-dormant or pale oil sprays which may be mixed with lime-sulphur are now on the market. A single application of oil-lime-sulphur offers many advantages and in addition to controlling San Jose scale, also controls Prune scale and red mite. This spray is mixed in the following proportions:—

Oil 1 gal.
Lime-sulphur 1 gal.
Water to make 20 gals.

Care should be exercised by growers to see that the right type of oil spray is used in combination with the lime-sulphur, and that the manufacturers' directions for mixing are followed.



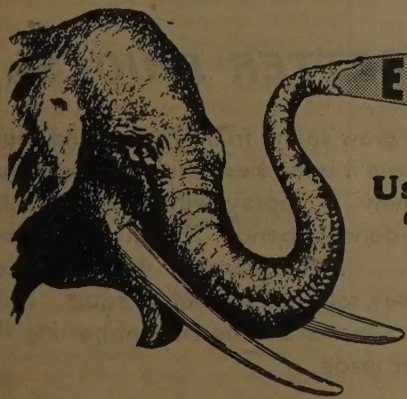
Limbs of a Pear tree killed by San Jose Scale. Note new growth from base.

(Illus. courtesy Victorian "Journal of Agriculture.")

Cherries, Nectarines and Peaches are commonly sprayed with tar distillates, and it has frequently been observed that this spray tends to encourage rather than check the development of San Jose scale. Growers are therefore advised to modify their programme of sprays if tar distillates are regularly used and San Jose scale becomes evident. Nicotine sulphate, 1 pint to 75 gallons of water, may be included in one of the delayed dormant sprays and offers a satisfactory alternative for the control of both aphids and scale.

PUBLICATIONS RECEIVED.

We acknowledge receipt of a bulletin from the Cawthron Institute, Nelson, New Zealand, in which Mr. R. H. K. Thomson deals with the subject of the removal of undesirable flavor and color from New Zealand honey. The development of a process for refining low-grade honeys is described, and changes which occur in the honey during the refining process. The process has been established commercially on a small but economically sound scale.



Use

"ELEPHANT" Brand

Arsenate of Lead—Quality Stands Alone.

We can supply all your Spray Requirements—**ARSENATE OF LEAD** (Paste or Powder), **SPRAY SPREADER, SPECIAL COPPER MIXTURE, LIME SULPHUR, WHITE OIL, NICOTINE SULPHATE, RED OIL, Etc.**

Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: **CODLIN MOTH COVER SPRAYS**—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

Are Actual Manufacturers and Distributors of
"ELEPHANT" Brand Sprays.

JACQUES PTY. LTD.,

Factory: **MADDEN GROVE, BURNLEY, E.I., MELB., Vic.** Telephone: J2008. City Office: **31 Queen St., Melbourne.** Telephone: Cent. 756

N.S.W.—Producers' Distributing Society Ltd., Valentine and Quay Streets, Sydney.
Qld.—Buzacott's Ltd., Adelaide Street, Brisbane.
S.A.—Silbert, Sharp & Bishop Ltd., Rundle St. E., Adelaide.
W.A.—Westralian Farmers' Ltd., 569 Wellington St., Perth
N.Z.—Pizzey, McInnes Ltd., Box 1114, G.P.O., Auckland.

Tas.—Sole Agents, E. R. Cottler Pty. Ltd., Davey St., Hobart; Exeter, West Tamar; also at Devonport and Launceston.

**Insist
Upon it !**

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

ANCIENT APPLE TREE SPRAYED.

118 Years Old.

Recently, with much ceremony, at Underwood, Washington, the oldest Apple tree in the Pacific Northwest of U.S.A., received its annual spray for scale. The tree was also given an application of fertiliser.

Said to be 118 years old, the tree, according to story, was planted by a young officer of the Hudson's Bay Company when it had its headquarters at Vancouver. The Apple from which the seed came was given to the young officer at a farewell ball given to the Hudson's Bay party the eve of their departure from London.

COLLOIDAL SULPHUR SPRAYS.

Notice is given of the reorganisation of the Spregan Colloidal Sulphur Pty. Ltd. Having taken over the business of the Colloidal Sulphur Pty. Ltd., the Spregan Company's office is now located at 37 Swanston-street, Melbourne, Victoria, although the factory is still maintained at the old address in Swanston-street, near Victoria-street.

In commenting on fungicidal sprays, Dr. G. H. Cunningham, B.Sc., mycologist at the Plant Research Station, Palmerston North, N.Z., states that there are four types of sulphur used in fruit culture, namely flour, sublimed (commonly known as flowers of sulphur), precipitated and colloidal. The latter type, colloidal, is applied to the group in which the particles of which they are composed are mostly spheroidal in shape, of exceedingly fine dimensions and which remain dissociated or do not aggregate together. This type is largely used in Great Britain, U.S.A. and other large fruit producing countries.

The Spregan Company state that because colloidal sulphur is so readily mixed with water and is in such a fine state of division, it affords perfect coverage of either foliage or fruit, reducing wastage and is therefore very economical in use. To vignerons who use large quantities of sulphur, colloidal has a wonderful tonic effect, apart from its fungicidal benefits. It is safe, certain and economical, claims their advertisement in this issue.

Further particulars regarding Spregan Colloidal Sulphur can be obtained at the company's office or by telephoning Central 2806.

"Black-End" In Pears

"Not Infectious," says Department of Agriculture

DUE TO RELATIONSHIP OF STOCK AND SCION.

AT THE RECENT Annual Meeting of the Southern (Victoria) Fruit Growers' Association, there was considerable discussion on the subject of "Black-End" in Pears. The Acting Supt. of Horticulture, Mr. F. M. Read, promised investigation into this problem.

The following statement is by Mr. C. E. Cole, B. Agr. Sc., Horticultural Research Officer of the Victorian Department of Agriculture:—

"BLACK END" OF PEARS, has been known to Victorian orchardists for many years, but recently, it has increased in certain districts and is causing concern to a number of growers. Pears affected become dome-shaped around the eye, and blackened areas appear on the surface, mostly at the calyx-end of the fruit. Other fruits merely become very hard without showing the blackening. The health of the tree is not otherwise affected. Trees bearing "Black End" fruit usually are scattered irregularly through the orchard, and may bear normal fruit until quite mature, or even later.

A "Black End" of Pears is known to orchardists of South Africa and America, and it is probably identical with that known in Victoria. In those countries it has been determined that "Black End" is not a "disease" in the sense that it is caused by a fungus, insect, or bacteria, and in Victoria, work carried out at the Botany School of the Melbourne University, confirmed this view with respect to Victorian trouble, which is apparently related to the

type of root-stocks,

on which the variety is worked.

If, then, it is caused by a fault in the stock-scion relationship, why does not the tree produce "Black End" Pears immediately? Why does it bear normal fruit for twenty or thirty years and then suddenly produce useless fruit?

There are parallel and more obvious cases of this hidden faulty relationship between stock and scion. It is generally known that Apricots grafted on to Peach or Myrobalan stocks may grow and fruit very satisfactorily for many years, and then suddenly snap off at the graft during a windstorm, perhaps no stronger than many others which have buffeted

the trees. This is the first indication that the union was not perfect.

Likewise the fault which produces "Black End" may not be shown until age in some way effects the vigor or resistance of the tree.

It has been shown by two American workers that, in certain grafts, breaks may occur in the cambium, or growing tissue, of the tree at the union towards the end of the growing season. These tissues often reunite, but this becomes less common as the tree ages. Where these breaks occur, tissues are laid down which interfere with the flow of sap, and finally the tree is visibly affected.

Some such mechanism may operate to produce "Black End" where the offending rootstocks are used.

It may be said that, if the Victorian "disease" is the true "Black End," it is not infectious and will appear on trees only because of the stock on which they happen to be grafted.

CODLING MOTH INFESTATION.

Comparisons Between Catches in Traps between U.S.A. and Australia.

INFORMATION is to hand from the "Ortho News," of May 29, 1939, of the severe Codling Moth infestation in the orchard districts of U.S.A.

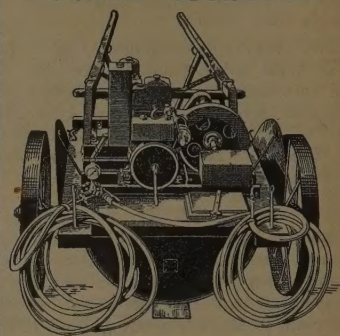
Total moths from 6 bait traps to May 1	117
Total moths from May 1 to May 14	3,732
Total moths from May 15 to May 28	1,551
	5,400

In the "Ortho News" of May 15, 1939, the following is stated:—

"While some good catches of moths had been recorded as early as May 1 this year, flight during the past week has really been 'going to town,' with a total catch recorded of 3,312 moths for seven nights. This is distinctly a peak point for the first brood this year. It is far heavier than the flight of last year. It is eleven days earlier than the peak point for 1938 and twenty days earlier than first brood high point in 1937.

"Records of a similar nature are coming to us from many localities. One orchardist in Wenatchee reported

— THE — BAVE-U POWER SPRAYER



Write for Particulars of the
UNDERSLUNG MODEL

Russell & Co.

Box Hill, E.11, Victoria

The work of the Department of Agriculture on "Black End" in the coming year will be concerned mainly with the stock-scion relationship aspects.

ted a catch of over 1,500 moths in ten traps for a single night recently. An orchardist at Wapato reported a catch of 247 moths for one trap during a single night about a week ago, and stated that the trap was so full of moths that no more could get in to the bait. The prize, however, so far as our information is concerned, goes to Medford, Oregon, with a reported catch of '350 moths per pan in Pear orchards'."

In 10 bait traps during the months of October and November last year, under 1,000 moths were caught in the orchard of Mr. W. Eagle of Harcourt. Infestation in Victoria is slight compared with U.S.A.

JAS. H. LANG.

Harcourt, Victoria.

U.S.A. APPLE CROP.

Official advices from Washington, D.C., forecast the U.S.A. Apple crop for 1939 at 69 per cent. of full crop. The Apple crop in some States is reported to be above the percentage named, while other States are below the percentage. The two States which affect marketing in England prior to, or at the Australian marketing period are Oregon (71 per cent. of a full crop), and Washington (70 per cent.).



SOUND FRUIT

BRINGS BETTER PRICES . .

Healthy trees will grow sound fruit . . . and there is one way, (we claim it is the best way), to keep a fruit tree healthy, namely — Spray with Gargoyle RED Spraying Oil in the dormant period. This oil is the famous original RED oil . . . the pioneer. Not merely an insecticide but a bark softener without an equal. Insist on the "Gargoyle" brand and be sure of getting the finest RED oil ever made.

Protect your orchard with

Gargoyle RED Spraying Oil

VICTORIA

Southern (Victoria) Fruit-growers Association

ANNUAL MEETING RECOMMENDS NO ALTERATION TO PRESENT HOURS AT THE VICTORIA MARKET — OVERSTORAGE OF PEACHES OPPOSED — MORE POWER REQUIRED TO CLEAN UP NEGLECTED ORCHARDS — RESEARCH NEEDED INTO "BLACK END" OF PEARS — MARKETING PROBLEMS DISCUSSED.

THE NINETEENTH ANNUAL MEETING of the Southern (Victoria) Fruitgrowers' Association was held at Box Hill on July 6, 1939. Mr. E. Noonan, who presided over a large attendance, pointed out the difficult cultural season through which the industry had passed. Costs of production, he stated, were increasing, and overseas markets appear to be contracting. The consumption of fruit in Australia was low as compared with other countries: the medical profession and nutrition committees urged a greater consumption of fruit for the health of the people, and in this connection the Southern Growers' Association was co-operating with others in the campaign to increase Apple consumption in this country. This was a very important matter.

Mr. W. J. Hutchinson, M.P., gave an outline of the operation of producers' Export Control Boards, and stated the Apple and Pear Board had been created to carry on the work so ably commenced by the Apple and Pear Council, but with statutory powers. It merited the wholehearted support of growers. If, in three years' time, the job had not been well done, the growers could vote it out. There was need for better organisation of the Apple and Pear industry in Victoria, particularly on the lines of publicity and research. Publicity would lift consumption of Apples and Pears. The value of research was undoubted. Difficulties were confronting all Australian Primary industries, and such would only live through efficiency.

A hearty vote of thanks was carried on the motion of Messrs. J. J. Tully (Doncaster), and R. Wilton (Geelong).

Annual Report.

The annual report stated that the request for increased powers for orchard supervisors to deal with neglected orchards had not been finalised, but was still before the Government. The Superintendent of Horticulture had reported that there had been a marked improvement in the three main pest destroyers—viz., lead arsenate, lime sulphur and nicotine sulphate. Other items dealt with were transport at the Victoria Market, because of country transports blocking the roadways, and this matter had been taken up with the Market Superintendent. Thanks were expressed to Mr. F. Beet for the successful field day held at his orchard. Fruit distributions had been conducted to schools, kindergartens, creches and hospitals, and good work was being done in the way of publicity to increase fruit consumption.

The report further stated that there was need for the right to sell fruit at Sports' Grounds and places of amusement, on Saturday afternoons, in Winter, despite the fact that fruit shops remained closed by legislation. Mr. W. A. Thiele was thanked for providing his orchard for black spot research and to the Department of Agriculture for assistance in this and other matters.

Mr. J. B. Mills, chairman of the Australian Apple and Pear Board, urged the necessity for one united organisation in Victoria in order to

support the Victorian grower delegates. The Apple and Pear Board had been set up as all parties in the Federal Government were unanimous on the subject. Much work had already been done by the Apple and Pear Council in the regulating of the British markets in co-operation with the shipping companies. This would be continued. Equally so there was need for co-ordination with regard to supplying fruit to the main Australian markets, instead of blindly creating gluts as at present. While as regards publicity the industry had the full weight of the medical and dental professions. The levy of 3d. per case would make it possible for needed market research and publicity.

A hearty vote of thanks was conveyed to Mr. Mills on the motion of Messrs. W. A. Webb and Byrne.

Selling Fruit by Count.

Mr. R. Wilton, Geelong, moved that the sale of large fruits by count instead of by weight be made compulsory. Mr. S. Hartwick, Geelong, seconded.

After a vigorous debate the resolution was carried.

Victoria Market Hours.

After discussion a resolution was carried opposing any change in the marketing hours at the Victoria Market.

Neglected Orchards.

A resolution was unanimously carried reaffirming the need for an amendment to the Vine and Vegetation Diseases Act, whereby orchard supervisors would be able to deal more effectively with neglected orchards.

Overstorage of Peaches.

The President directed attention to the danger of losing the market for Peaches, because of overstorage and the selling of a product which looked well, but was worthless.

Mr. Thiele moved that the matter be referred to the incoming executive for enquiry and report to the next Conference.

Mr. Tully, in seconding, directed attention to the research work now being conducted in the storage of Peaches.

Mr. Toogood said the cool storage of Peaches for local market should be discontinued. Varieties such as Wiggins, Late Crawford and Smiths, could sometimes be stored successfully for a brief period, but results were variable and generally unsatisfactory.

The motion was carried.

Fruit Shops' Hours.

Mr. Beet stated that in addition to the present compulsory closing of fruit shops at 7 p.m. on week nights and 1 p.m. on Saturdays in Winter, there appeared to be a move to get these hours extended to the Summer. The compulsory curtailment of hours was seriously affecting the industry. Apart from the closing of the fruit shops on Saturday afternoons in Winter it was also not permitted that fruit be sold on sports grounds and places of amusement. He moved—

"That this meeting of fruitgrowers emphasise the urgent need for the right to sell fruit on sports grounds and places of amusement in Winter and authorise the calling for a meeting of all Victorian fruit-

growers, if necessary, with a view to achieving its objective and further, that this matter be left in the hands of the executive."

Mr. Moffat seconded.

The chairman said he was aware of some retailers losing £6 to £7 per week in turnover since the restrictions; some retailers, especially those who depended on "catch" trade had gone out of business. The resolution was carried.

"Black End" of Pears.

Mr. Miller reported that a serious disease was becoming more prevalent and was assuming serious proportions. It was decided to approach the Department of Agriculture in order that investigational work could be conducted.

The Acting Superintendent of Horticulture, Mr. F. M. Read, stated that good work had already been done in this connection and that it appeared to be the result of incompatibility of stock and scion. Resolution carried.

At the instance of Mr. H. Clay, Doncaster, it was decided that the executive be authorised to approach the authorities with a view to securing a reduction of water charges from 1/- to 6d. per 1,000 gallons.

Office bearers were elected as follows:—President: Cr. G. T. Knee (East Doncaster). Immediate Past President: Mr. E. Noonan. Vice-President: Mr. G. Miller (Diamond Creek). Executive: Messrs. F. G. Beet (East Burwood), M. Brown (East Burwood), T. Harrington (Diamond Creek), L. Pepperell (Mt. Waverley), E. Crittenden (East Burwood), S. Hartwick and R. Wilton (Geelong).

A hearty vote of thanks to the retiring President was carried on the motion of Messrs. W. A. Thiele and L. Webb.

The recent survey of products grown in the M.I. Area has shown an extremely wide range, practically everything grown in the Commonwealth excepting Bananas and sugar being grown there.

VICTORIAN BERRY GROWERS.

Problems Confronting the Industry.

More Research Needed.

At recent meetings of Victorian berry growers, dissatisfaction has been expressed against the Sugar Concession Committee. Growers state that for the past five years fruit has not been grown at a profit, and prices were fixed too late for Victorian growers. It was asked that prices be fixed in October or alternatively that Victorian berry crops be excluded from the concession committee's jurisdiction. Contracts could not be obtained for supplies to factories as they invariably waited until the Committee fixed the minimum price.

Messrs. Fairbairn, M.H.R., Knox, M.L.A., and Chandler, M.L.C., conferred with berry growers on this subject, and Mr. Fairbairn promised to put the matter before the Minister of Customs, and also to elucidate the method of appointment of the representative berry growing interests to the Sugar Concession Committee, as the growers alleged that Victoria had no say in the matter.

Growers also allege that there are no efficient investigations being carried out with regards berry crop scourges. The Agricultural Department and C.S.I.R. have been appealed to for help.

Mr. W. Jeeves was re-elected President of the Berry Growers' Association for the fourteenth year in succession. Other officers elected were: Vice-president, Mr. J. P. Cowey; Treasurer, Mr. J. H. Lord; Secretary, Mr. W. Campbell; Auditor, Mr. A. Brown.

World citrus production has increased at the average rate of about 10 million boxes per year during the past decade, and probably will continue to expand in the next five to ten years.

Remember!

THE NEXT TIME YOU SPRAY

Use

"VALLO"

Orchard Sprays

Proved the Best Highest Grade and Purity

Manufactured in Australia by
VICTOR LEGGO & FARMERS Ltd.

222 Queen Street, Melbourne

Phone C 1243

P.O. Box 508H

Supplies Obtainable All Stores

In Preparing Your Bordeaux Sprays Use . . .

ESA BLUESTONE

— Manufactured by —

THE ELECTROLYTIC REFINING & SMELTING COMPANY OF AUSTRALIA LTD.
PORT KEMBLA, NEW SOUTH WALES.

**The Right Material for Plant Disease Prevention and Control
GUARANTEED 99% PURITY**

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: ELDER SMITH & COMPANY LIMITED, All Capital Cities.

BOOKLET—"Better Yields by Spraying with ESA Bluestone" obtainable on application to Elder Smith & Co. Ltd.

... FRUIT TREES ...

ALMONDS, APPLES, PEACHES, APRICOTS, PLUMS, QUINCES, etc., in best sorts.

Extra strong trees 1/6 each, 15/- doz. Usual size 1/- each, 10/- doz., 75/- per 100.

GRAPE VINES, 6/- doz., 35/- 100.

GOOSEBERRIES, LOGANBERRIES, CURRANTS 4/- doz., 25/- 100.

STRAWBERRIES 2/6 100, 14/- 1,000.

RASPBERRIES 1/- doz., 6/- 100.

SPECIAL: Nice lot of Phillips' Cling and Golden Queen Peaches.

ROSES.

Choice: 1/- each, 10/- dozen.

Standards 2/3 each, 25/- doz.

Maples, Genistas, Cotoneasters, Ash, Oaks, Elms, Poplars and big variety of shrubs and trees, 1/- to 4/- each, according to size and kind.

A. G. NIGHTINGALE & CO.,
Nurserymen, Emerald, Victoria.

"HARVEY" Fruit Graders AND PROCESSING EQUIPMENT

New Horse-Hair Belt Type Citrus Polishing Machine—

The lower set of brushes traverses in the same direction as the fruit, at a given speed, and the lower side of the top brushes traverses in the opposite direction, at half the speed, thus giving a DOUBLE BRUSHING ACTION.

The fruit is in FULL CONTACT with the brushes throughout the process.

The amount of PRESSURE CAN BE REGULATED by lowering or raising the top set of brushes.

The amount of BRUSHING CAN BE REGULATED by running the top brushes faster or slower.

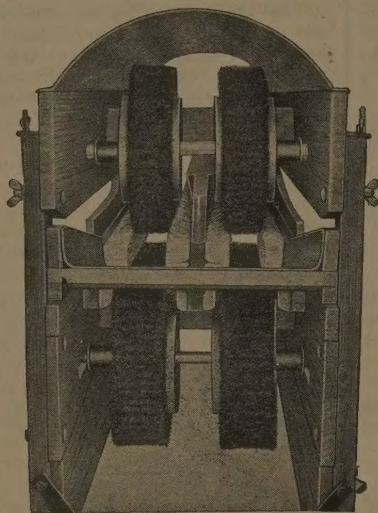
It can be run in conjunction with your grader, or fed on to the packing bench.

Built in 1, 2, 3 or 4 runway size.

CITRUS PROCESSING PLANTS
SORTING TABLES
LIDDING PRESSES
WAXING PLANTS
GRAVITY CONVEYORS
BRYTENE PLANTS

START RIGHT — KEEP IN
MIND THE FUTURE.

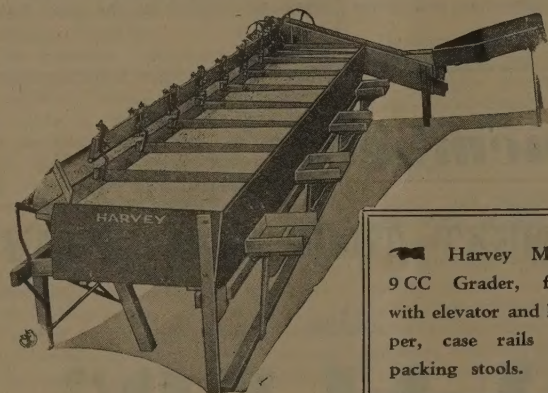
The Harvey Single Sided Graders are designed to become the first unit of twin graders for color and count grading.



Harvey 2-Runway Horse-Hair Belt Citrus Polisher.



Harvey 2-Runway Horse-Hair Belt Citrus Brusher fitted to 8 c.c. Grader.



Harvey Model 9 CC Grader, fitted with elevator and hopper, case rails and packing stools.

THE "HARVEY"

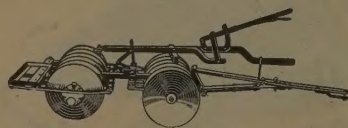
GRADER HAS MANY NEW AND EXCLUSIVE FEATURES, WHICH ARE CLAIMED BY USERS TO BE THE LAST WORD IN ACCURATE SIZING.

HARVEY PATENT FEATURES:

1. The setting of Grading Rollers at an oblique angle across the Grading Belt.
2. Independent Adjustable Rollers.
3. Deflectors for deflecting fruit from a full bin into the next, to avoid overcrowding where there is a predominating size in a variety.
4. Elevator delivering fruit on to lower side of belt, thus avoiding damage.
5. External friction drive of grading elements, variable speed auxiliary drive.
6. Exclusive sorting and single file elevators.

"HARVEY" IMPLEMENTS

Live Up To Their Reputation For DEPENDABILITY



"HARVEY" PATENT OFFSET TANDEM DISC CULTIVATOR: Cultivates right up to the butts of the trees or vines while the Tractor is driven right out in the middle of the row.

Proved to be an excellent machine for deeply cultivating heavy irrigation land.

**A Harvey Implement
for Every Need**

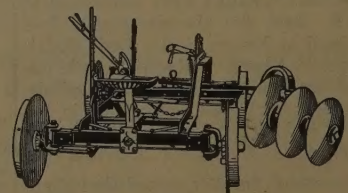


"HARVEY" 3-FURROW TRACTOR POWER LIFT HB7 MOULDBOARD ORCHARD PLOW: A one-man job. Built in sizes from two to six furrows.

THE BEETLEBACK cuts out all hard working under citrus trees, and keeps the ground level. It lifts up the branches, cultivates under them, and gently replaces them on the ground.



THE "HARVEY" LANCIA DISC PLOW is designed specially for the hardest kind of plowing. Low overhead clearance for low overhanging trees. Can be racked over for both plowing close up to and away from the trees. Equipped with the famous "HARVEY" Power Lift or Screw Lifts which are operated from the seat of the Tractor.



"HARVEY" built "PETTY" PLOW: Plows out strips which have not been plowed for years. Cuts through couch grass with the greatest of ease. Also plows up to the trees and in the centre. DISC CULTIVATING GANG can be attached in place of Disc Plow Gang.

Agents in All States

DANIEL HARVEY LIMITED, Orchard Implement Specialists, BOX HILL, VIC.

VICTORIA—Continued**VICTORIAN FRUIT IN COOL STORE.**

There were 678,000 cases of Apples and 93,000 cases of Pears in cool store in Victoria, up to June 30, according to the report of the Government Statist.

SHEPPARTON FRUIT PRESERVING.

At a meeting of directors of the Shepparton Fruit Preserving Company, held recently, Mr. F. J. Pick was appointed Secretary in succession to the late A. E. Pearce. A native of Shepparton, Mr. Pick has been associated with the cannery for a long time as accountant. He is a son of the mayor of Shepparton, Cr. John Pick.

SOMERVILLE.

Officers of Somerville Fruitgrowers' Association for 1939 are:—President, Mr. F. L. Twyford; Vice-presidents, Messrs. J. E. Sage, F. V. Binder, T. W. Brunning, R. Henry; Treasurer, Mr. A. J. F. Cummins; Secretary, Mr. C. H. Jenkins; Caretaker, Mr. A. Thornell; Committee, Messrs. L. McLean, A. Sage, J. W. Caldwell, E. Allison, R. J. Thornell, W. J. Boyd, H. G. Overton.

NEW SPRAYER CATALOGUE.

A colorful booklet on Sunshine Power Spraying Outfits has just been issued. It gives a wealth of detail about both wheeled and frame-mounted types, with illustrations showing the many good features emphasised. In addition, the back page shows a list of Sunshine and Massey Harris orchard and vineyard equipment, and this in itself is a revelation as to the wealth of specialised machinery now at the service of the progressive grower.

Copies of the catalogue will be sent post free on request to H. V. McKay Massey Harris Pty. Ltd., Sunshine Harvester Works, Sunshine, Victoria.

S. AUST. DRIED FRUITS BOARD.

THE S. AUSTRALIAN DRIED FRUITS BOARD held a meeting on July 10, 1939, when all the members were present.

The Secretary (Mr. W. N. Twiss) submitted minutes of the meeting of the Consultative Committee held in Melbourne on June 30, 1939, and the Board dealt with the several recommendations contained therein. Reports were received and recommendations were approved in regard to the storage of dried fruits and on establishment of safeguards on the movements of dried fruits between packing houses.

Report of Inspector Connolly on the supervision of the Board's exhibit at the Ideal Kitchen Competition organised by the Housewives' Association was presented and indicated that valuable publicity had been achieved through the medium of the exhibit. The Competition which was open for a week was well attended and considerable interest was evinced in the Board's exhibit.

Senior Supervisor Colbey of the Department of Commerce attended the meeting by invitation and displayed a line of samples of Prunes, showing the effect of the different methods of processing. Mr. Colbey reported favorably on the conduct of the Prune processing premises which the Board had registered in 1939 and stated that uniform standards of processing had been established.

FRUIT JUICES**Need for Definite Standards**

THE USE OF PURE FRUIT JUICES IS RECOMMENDED BY THE MEDICAL PROFESSION.

INCREASING ATTENTION is being paid to the exceedingly important subject of fruit juices.

Particulars of the tremendous increase in the consumption of pure fruit juices on the Continent and England were recently published in the "Fruit World and Market Grower."

Now we are indebted to Mr. W. M. Carne, of the Dept. of Commerce for sending particulars of a Fruit Juice Conference held in March of this year at Long Ashton, England.

Two papers before that conference dealt with standardisation of fruit juices.

One of these was by Mr. C. P. Norbury and is as follows:—

AT THE PRESENT TIME there are beverages being sold under the name of Apple juice which call for regulation to protect the purchaser, and if, as we hope unfermented Apple juice is going to take its rightful place in the diet of the nation, it is of the utmost importance that the product is absolutely pure and healthy and standardised and can in no way be confused with a synthetic juice. Unfermented Apple juice is briefly what it says; but it is naturally more expensive than a colored water with a little fruit essence added: a product which is so tempting for an unscrupulous manufacturer to prepare. In view of the possible importance of these juices for general health or other specific disorders, it is important that the public should know when they purchase the pure genuine fruit juice.

In Germany, where the industry has developed most markedly — standards have been adopted from the start, and the beverage had won the confidence of the people. It is easier getting standards adopted there, in fact they had a standard for beer before 1500, and this is no doubt the reason why German beer enjoys such a reputation to-day.

Rigid standards are adopted for Apple juice in Switzerland, too. In both of these countries the greater proportion of the medical profession back them up for their value in correcting various diseases and from a general health point of view.

My main points are:—

First, we do not wish to base our claims on the fictitious advertising of a product which exploits human credulity—as is so often the case with patent medicines, but on a standard article of known composition which is as near as possible to a natural product.

Secondly, we want protection from competition from spurious juices.

The fruit juice industry in England is determined to get standards adopted. The National Farmers' Union has formed a sub-committee to draft actual definitions in co-operation with them, for a flourishing fruit juice industry which promises a good outlet for fruit which is not up to the standard of market requirements. Quoting Germany again, in 1938, 30 per cent. of their Apple crop was made into unfermented Apple juice, which does emphasise the possibilities the industry offers to the fruit grower.

The views of the committee were that a grade of Apple juice should be defined and suitably named to include only fresh, undiluted, Apple juice having undergone the minimum treatment necessary for clarification and stabilisation and to be free from coloring matter and preservatives.

It may be desirable to define a sweetened juice as well, and also a concentrate if one is made. In any case we feel that the consumer has a right to know what he is buying, especially as this is an article which can be fairly easily faked.

Personally, I should like to see all beverages conform to defined standards, especially beer, cider, Orange and Lemon squashes, and crushes, and if the mineral water trade wish to sell fruit drinks, the public have a right to know how much fruit they are getting; and the fruitgrower would be glad to supply them with fruit.

In this country we are fortunate in a way by being one of the last countries to adopt standards for beverages—for we can draw upon the experience of other countries who have been working on standards for some time. I will take the case of Canada, and give the regulations they have adopted for fruit juices.

No. 1. Fruit juices shall be clean, unfermented, liquid products obtained by the first pressing of fresh fruit, and shall correspond in name to the fruits from which they have been obtained, and shall contain not more than 2 per cent. of alcohol by volume. (In Germany the maximum alcoholic content is 0.5 per cent.)

No. 2. Apple juice, whether the fresh juice, or the dilution of a juice concentrate obtained from Apple, the fruit of *Pyrus Malus*, shall have a specific gravity (at 20 deg. C.) not less than 1.0415 nor greater than 1.0690, and shall contain in 100 ccs. (20 deg. C.) not less than 6 grams, and not more than 20 grams of total sugars in terms of reducing sugars, not less than 24 centigrams nor more

PAKENHAM FIELD DAY.

Under the auspices of the Gippsland Fruit Marketing Association and the Victorian Fruit Marketing Association, a Field Day will be held at the orchard of Mr. J. J. Ahern, Pakenham, on Friday, August 11, commencing at 2 p.m. There will be demonstrations of pruning and reworking of fruit trees by Government experts and local growers.

Addresses will be given by Mr. J. B. Mills, Chairman, Australian Apple and Pear Board, and Mr. F. M. Read, M.A.G.Sc., Acting Superintendent of Horticulture, on "Some Aspects of the Coming Season."

On the same evening in the Mechanics' Hall, Pakenham, at 7.30 p.m., there will be a display of moving pictures by the Department of Agriculture on reworking of fruit trees and other phases of orchard work; also pictures of field days and Apple publicity work, as well as comedy pictures. Following the pictures a meeting of growers will be held to discuss matters relative to organisation in the industry.

than 60 centigrams of Apple ash which shall contain not less than 50 per cent. of potassium carbonate.

No. 3. This refers to Grape juice. The Canadian standard says it must be the juice obtained from Grapes (*Vitis* species), and shall have a specific gravity (at 20 deg. C.) not less than 1.0400 and not exceeding 1.240, and shall contain in 100 ccs. (at 20 deg. C.) not less than 7 grams and not more than 28 grams of total sugars in terms of reducing sugars, not less than 20 centigrams and not more than 55 centigrams of Grape ash, and not less than 15 milligrams

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nor more than 70 milligrams of phosphoric acid.

No. 4. Lemon juice shall be the juice of Lemons—the fruit of Citrus limonium Risso—shall have a specific gravity (at 20 deg. C.) of not less than 1.030 and not greater than 1.040, and shall contain not less than 10 per cent. of solids and not less than 7 per cent. of citric acid. Other regulations refer to Lime and Orange juices, sterilised fruit juices, concentrated juices, sweet fruit juices and syrups.

In the case of German regulations, these are much more detailed—and they define the permissible processes of pressing and filtration, cellar storage—in fact, every detail of manufacture. Factories are inspected and

the whole industry is regimented. We feel at present this is unnecessary if the results can be obtained by other means.

The use of preservatives in pure Apple juice is strictly forbidden—and I think that the present tolerance here of preservatives in Orange and Lemon juices may be found to be too high, and most certainly their presence should be declared on the label.

The effect of these standards enables a series of products to be manufactured which really do contain a reasonable quantity of fruit juice. The specific gravity and ash content have to be defined to prevent faked products from being put on the market.

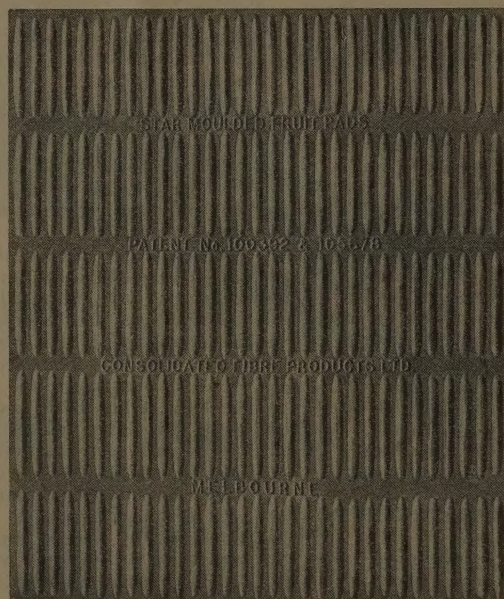
Improved Fruit Packing

Moulded Pads Now

CONSOLIDATED Fibre Products Limited, of 321 William-street, Melbourne, Victoria, the distributors of the well-known "Keyes" Egg Trays, extensively used in the export of Australian eggs, has through its managing director, Mr. S. Meltzer, been conducting extensive tests with a view of producing a corrugated Moulded Fruit Pad. They are now pleased to state that they are in a position to manufacture and

storage. With "Star" Moulded Fruit Pads there is no likelihood of damage or contamination as the pads act as a cushion as well as giving air passage within the case and therefore better air circulation during storage. The "Star" Moulded Fruit Pads are manufactured in various colors of fast dyes which will not taint the fruit nor give any discoloration.

After a preliminary test of the "Star" Moulded Fruit Pads, the Di-



supply "Star" Moulded Fruit Pads which are a distinct advantage to the grower and exporter of fresh fruits as they can be used repeatedly owing to the fact that they are strong, resilient, odorless and practically moisture-proof.

Mr. Meltzer, in an interview with our representative, stated that, up to the present, fruit pads have been made from corrugated strawboard and paper board, but these absorb dampness and are not satisfactory for cool storage or for the packing of fresh fruits in a changeable climate.

The experience gained in manufacturing Keyes Egg Trays from paper pulp has enabled Mr. Meltzer to manufacture the "Star" Moulded Fruit Pads of similar material which is of such a nature that it does not absorb moisture but remains firm without contaminating the fruit. Commonwealth Letters Patent have been granted for the article which is now being marketed under the name of "Star" Moulded Fruit Pads.

These "Star" Moulded Fruit Pads have both horizontal and vertical depressions to give full ventilation, whilst the horizontal raised pads give resiliency, thus preventing bruising of the fruit whilst in transport or cool

rector of Fruit Culture, Department of Agriculture, Queensland, writes as follows:—

"The 'Star' Moulded Fruit Pads appear to be excellent for the use for which they are designed. Moisture tests show that they do not collapse through moisture or pressure when wet."

The attention of readers is directed to the company's advertisement in this issue, wherein the "Star" Moulded Fruit Pads are illustrated. Full information of costs and deliveries may be had upon application to Consolidated Fibre Products Ltd., 321 William-street, Melbourne, Victoria.

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News from Western Australia

Handling the W.A. Apple Crop

EXCELLENT SERVICE RENDERED BY APPLE SALES BOARD.
MARKETING STATISTICS EXAMINED — ORGANISED DELIVERIES —
EDUCATIONAL PUBLICITY.

BARTLETT PEARS ARE ALSO INCLUDED.

The Need is Stressed for Loyalty to the Board's Recommendations, as the Scheme is Voluntary — Orderly Marketing can be Nullified by Percentage of Growers Operating Outside the Scheme.

THE NINTH ANNUAL REPORT of the W.A. Apple Sales Board for the season 1938-39, is just to hand. It is a fine record of constructive service. Their programme includes orderly marketing and publicity for W.A. cold-stored Apples, also the marketing of the crop of Bartlett (Williams, B.C. or Duchess) Pears. The report points out the steady increase in the crops of Apples and the need for growers to abide by the decisions of the Board, as otherwise its effectiveness can be nullified. The Apple Sales Board is a voluntary organisation.

Foreword.

In the foreword the chairman, Mr. A. C. R. Loaring stresses the importance of the work of the Board. He writes:

"Very much of the value of the work has been obscured by the changing circumstances of the Apple industry. It was commenced in a year when the crop was under half a million boxes; the following year 1½ million boxes were harvested then, for three years, an average of less than a million rising subsequently to 1½ millions; in its tenth season the Committee has to adjust its ideas and methods in relation to the local market proportion of a crop which must apparently exceed significantly a total of no less than 1½ million boxes. So much have circumstances changed that it is difficult to-day to recall the conditions of irregular marketing and fluctuating values of ten years ago and earlier. But what would have been the position in the years since if no attempt at improvement and regulation had been made?"

"In the first years of these operations (1930 and 1931) the local market absorbed only 265,000 boxes per annum; in 1938 it absorbed just on 400,000 boxes! It can fairly be claimed that but a part of that is due to any extraneous circumstances or more favorable buying prices; regularity of marketing, improved quality and confidence, properly directed publicity and unceasing concern for all relevant aspects have all been vital contributions; and we are certain that the body of growers will join with us in ascribing a major share of the credit to the work of the Marketing Committee of the Apple Sales Board. No less will the grower of Bartlett Pears appreciate that the work of this organisation has turned his outlook from hopelessness to reasonable hopefulness. So much has been done, but so much more has to be achieved. May we therefore look with confidence for your personal support in backing to the fullest the efforts put forward voluntarily, honorarily and so effectively for the safeguarding and advancement of your interests."

Then follows the report of the Board:—

Period.

This report covers the marketing of cool stored Apples during the period July-December, 1938, and the Bartlett Pears stored and marketed from January-May, 1939. The experience in respect of both Apples and Pears are treated separately.

Apples—1938 Season.

Crop.

The 1938 crop was a light one, as shown by the following table, which sets out the total production and quantity exported for the years 1934-35 to 1937-38.

Year.	Total Production.	Exported.	Consumed Locally.
1934-35	1,228,300	859,463	368,837
1935-36	1,235,849	909,308	326,541
1936-37	1,045,369	701,967	343,402
1937-38	930,678	538,703	391,975

Export.

The quantity exported in 1938 was substantially the lowest for many years.

Local Consumption.

During the season under review local consumption is the highest of any year, exceeding by 23,000 cases the previous record of 1934-35. Herein lies the reason for the comparatively low values that were experienced last season.

Cool Stored Quantities.

Whenever the estimated crop discloses a decreased volume, many growers adopt the mistaken policy of exporting less and holding extra quantities for local market. This was the position last year when with a decrease in the total crop of 95,000 cases, it would naturally be expected that the quantity held for local consumption would be decreased in proportion. Instead, the initial cool store figures disclosed an increase in total of nearly 13,000 cases, and an increase in Granny Smiths of 17,500 over the total held in 1937. Had the bulk of this extra quantity of this variety been exported, the high prices that were realised late in previous seasons would have again materialised and the exported fruit would have realised a better nett return than that obtained by holding for local sale.

Shed Stored Quantities.

It is difficult to gauge the quantities stored in sheds as no central source of information is available and unloadings are subject to no organised direction. The total appeared to be lighter than usual and was cleared a little earlier. There is a tendency among some growers to hold their shed fruit too long with consequent deterioration in quality which is reflected in values.

Marketing Experience.

Although immediate attention was

drawn to the necessity for an earlier commencement of regular withdrawals—particularly of unpopular varieties—clearances in the early months were much too slow.

Values for the main storage lines—Yates and Grannys—at no stage reached the equivalent of other seasons, and rates for other varieties were also lower in sympathy.

Every effort was made by the Committee to hasten the unloading of unsuitable fruit for long storage early in the season when the market was favorable. Regular attention was drawn to the excessive quantities held and recommendations were made as to the weekly withdrawals from each store.

Some stores followed out these recommendations faithfully, but other chose to ignore them. As a result no appreciable headway was made until late in the season in reducing the excess over what was considered safe for the demand.

This position was also generally complicated by the huge volume of fruit that had passed from growers' control and which was held by merchants in the hope of a lift in values.

Later when the market was favorable for higher values, the weight of unloading of speculative fruit prevented any improvement of price levels.

Those growers who followed the recommendations of the Committee, however, obtained a much better nett result because of the fact that the earlier clearance of their fruit meant a considerable reduction in storage costs.

Support.

Most centres carried out the Board's recommendations in their entirety.

There were still, however, sufficient growers who, by refusing to follow marketing recommendations made, embarrassed the Committee in its work, to their own loss and to the detriment of the many loyal supporters of the Board.

Their action not only resulted in loss to themselves and upset the planned marketing of other fruit, but also spoilt the sales through loss of public demand, resulting from inferior quality arising from overstorage. It is most disheartening to the Committee who devote much of their time in an honorary capacity to the work of the Board to find that their recommendations are ignored by a section of the growers whose interests they are endeavoring to serve.

General.

The administrative expenses were again borne by the Co-operative bodies from which the Board itself is constituted.

The Committee cordially thanks the management and officers of cool stores for valued co-operation.

Where district meetings are arranged, speakers will be sent.

Bulk Loading.

Apart from the free service given to growers in the general work of the Board, the savings obtained by means of bulk transport of fruit, made possible by the Board's honorary efforts, again totalled over £700!

Local Market Policy.

A comparatively few years ago, the

HIGHLIGHTS OF THE REPORT.

The W.A. Apple Sales Board was commenced nine years ago when the crop was under 500,000 bushels. The local market then absorbed only 265,000 bushels. In 1938 the local market accounted for just on 400,000 bushels.

With a record crop of 1,750,000 bushels in 1939, the maximum quantity has been exported overseas. Quantities have been moved to Interstate markets, and still there is an excess over local needs, necessitating loyal support by growers to the Committee's marketing advices.

In 1938 the Apple crop was 930,678 bushels, of which 538,703 cases were exported, leaving 391,975 for local consumption—an increase of 48,573 bushels over 1937, which caused lower prices, due largely to non-fulfilment of the Committee's request for early marketing instead of long storage.

The bearing area has increased in 10 years by 2,348 acres.

Where W.A. Apple crops in future are over 1½ million bushels, growers must export three cases for every one held for local sale.

Many unwanted varieties are still stored and are seldom profitable. Growers are advised to work them over.

A vigorous publicity campaign on educational lines is being conducted.

Bartlett (W.B.C., or Duchess) Pears are also under the jurisdiction of the Committee. These Pears should not be wrapped for storage. Non-compliance with the Committee's marketing recommendations this season was a major factor in the low prices received.

local market was regarded by many as an outlet comparable with and in many instances better than export. But it is no longer justified!

The figures previously quoted show that in 1935/36 the average crop was about 1½ millions, far higher than ever before; this was not seasonal increase arose from new acreage coming into bearing. In 1937 the crop would, but for hail, have gone to about 1,400,000 boxes. In 1938, one of the most adverse seasons ever experienced, set the total back to just under 1 million—yet the quantity marketed locally rose by 50,000 boxes! It can fairly be said that the whole of this increase of local market lots was of exportable fruit held back at the expense of the growers who kept it—and at the expense of all the others who had held non-exportable lots or normal quantities! It is recognised that this is not entirely accidental. Some local market operators have advocated this course and have in some instances purchased parcels, in others have effected or suggested guarantees or have held out suggestions of values allegedly ahead of export parity; but were these achieved?

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H41/39

It may have been sound to retain for local market one box for each one exported in the years when as from 1921/31 the crop averaged only 660,000 boxes per annum. It may have been sound to have held one box for each two exported when as from 1931/34 the crop averaged less than 1,000,000 boxes per annum. But when the total rose to 1½ millions as in 1935 and 1936, and when in future seasons the crop must average over 1½ million cases, then at least three boxes must be exported for every one held for local market. Many growers are already following this policy, some shipping practically 100 per cent. of their crops. But so many others still seek to sell a bulk of their production locally that the benefit is lost.

The excessive quantities of Granny Smiths held in 1938 (despite warnings), illustrated this. The market experience during the shipping season of 1939 has emphasised it. Not only have many thousands of boxes of fruit which should and could have gone abroad, been dumped on the local market, but worse still, tens of thousands of boxes of early and mid-season varieties have been held in cool stores in hopeless anticipation of buoyancy in values; every additional case made this the more impossible even if storage charges were not piling up to reduce nett returns.

Quality.

This aspect needs emphasis from a new angle.

In the periods when Apples were scarce, anything resembling an Apple found an outlet. As quantities grew and prices receded the trade and the public naturally became more selective. To-day, with a normal crop there is ample good quality fruit available to meet local needs—and more! Every case of lower quality lowers prices further! It cannot be too clearly emphasised that the stage has long since passed when anything would do. Some fruit must be discarded. That is one of the inevitable costs of producing marketable Apples. It cannot be modified, much less overcome, by adding handling, casing, packing, transport and selling costs to an article which has no eventual value greater than those costs—it probably may not equal them. Such fruit makes good mutton, excellent wool, fine pork, rich cream and more horse power; such are its proper outlets and the only forms in which the public will pay adequate return for it. Why misuse it to depress prices?

:: :: ::

1939 SEASON.

General Recommendations.

Quantities:

On no account should the quantity retained in store exceed that of last year. Any increase on these figures must inevitably mean deflation of prices below reasonable levels. Remember that the population of the State is practically the same and last year they were asked to consume 50,000 more cases than in the previous year.

Varieties:

Dispose of the various varieties in their season. Do not hold early and mid-season sorts to sell in competition with later varieties. Many unwanted varieties are still stored and are seldom profitable.

Such lines as Ballarat, Five Crown, King David, Spitzenburg, Rymer, Winesap, Commerce, Ben Davis, and numerous others are practically unknown to the general public, and their values seldom appreciate sufficiently to warrant cool storage costs. If grown they should be sold direct from the orchard, but the wise grower has long since changed to more popular varieties.

Selling Periods:

Each variety has its best period; that is, when it should be sold, or in other words, when the quality is at its best. Some growers have the mis-

taken idea that an Apple should be stored as long as it will keep. Over-matured, floury, flavorless fruit may sell, but it creates a dissatisfied public and such practice is therefore bad business.

Shed Storage:

Some growers still hold their fruit in sheds until late in the season. In districts with hard grown fruit this may be satisfactory for very limited periods, but when this practice is extended into months, the saving in cool storage charges is more than off-set by the lower price secured because of deterioration in quality. Usually better prices could have been obtained weeks and even months earlier, when the fruit was choice and attractive. With the almost certain prospect of abundant supplies of cool stored fruit this season, we would strongly urge growers who are using this method of holding to dispose of their fruit not later than the end of July.

Quality:

Quality should be the watchword of every grower. If every packer, when grading and packing his fruit, would consider himself as the probable ultimate purchaser and consumer of that fruit, and ask himself is he honestly satisfied with his purchase, what a difference in the quality would result? The importance of the creation and continuous encouragement of public confidence should be the primary consideration of each individual grower.

Presentation:

The following points are essential if your fruit is to be presented for sale in its best condition:—

Pick and pack and store at the correct stage.

Grade strictly according to the standards laid down.

Set yourself a high standard and stick to it.

Pack only good fruit of even grade.

See that your cases are of correct size and contain full weight.

Stencil your cases correctly.

Market regularly and consistently.

Prompt Storing:

The purpose of cool storage is to arrest decay and naturally any delay in storage after picking means shorter life. Pick, pack, store—without delay.

Yates:

Each recent successive season has shown that the demand for this variety is distinctly limited. It is most essential that the quantity stored is not only reduced, but only grades of 2½ in. and over be considered for storage. (2½ in. and 2½ in. should be withdrawn first.) To prevent breakdown the fruit should be picked, packed and stored at the correct stage of maturity. Efficient cool storage conditions are also most essential for long storage of this variety, and large sizes withdrawn first. Some growers have experimented with use of oiled wraps for Yates and found that their use has improved their keeping qualities.

Granny Smiths:

This variety needs special attention for storage if loss through scald is to be avoided. The fruit must be mature before picking and the use of oiled wraps is essential. To ensure the best results it is essential that the fruit should be shed stored for 7 to 14 days (and even up to 3 weeks in the case of immature fruit), before wrapping and cold storage; the period of holding being dependent on the maturity of the fruit at the date of picking.

Sizes:

Large sized fruit (if stored) should always be cleared first. Undersized fruit seldom justifies storage. In forwarding to cool store it is desirable to advise your market agent or cool store of the various sizes included in the consignment, so that the cases can be stacked in such a way that the large fruit is readily accessible for regular inspection and early clearance.

Handling the W.A. Apple Crop—(Contd.)

Marketing:

This work is perhaps the most important of all. The importance of marketing is such that it requires a specialist's attention and would strongly urge growers to leave this phase of the industry in the hands of his metropolitan agent, who is in close touch with the market and in the best position to secure the highest values. Therefore, take your agent into your confidence prior to storage, advise him of the quantities coming forward to permit of reservation of space, and leave the sale of the fruit to his discretion. We feel confident from long experience that you will not regret it.

Grading Regulations:

The regulations require that all growers shall market their fruit in certain standard grades and sizes, and that the boxes shall distinctly show such grades and sizes in addition to the quality grades laid down. Included in these regulations is also a provision that retailers shall comply with similar rules in exhibiting fruit for sale in their shops. The latter provision was not enforced until early this year in order to first give growers an opportunity of acquainting themselves and complying with the new standards.

The purpose of the regulations was to ensure the marketing of reliable fruit, true to description, and with which public favor and increased consumption could be won and held.

Production.

With another planting season upon us we cannot properly avoid putting before the growers the position of the industry in this regard.

The following are past averages:—

	Avg. Bearing Acreage.	Avg. Crop per Acre.	Avg. Annual Crop (Boxes).
1921-22 to 1930-31 . .	7,710	86	662,000
1931-32 to 1937-38 . .	8,763	118	1,035,000

The bearing area in 1927-28 was 7,391 acres.

The bearing area in 1927-28 was 9,739 acres. i.e., the bearing area increased in 10 years by 2,348 acres.

It is reliably estimated that in the same period the average annual production per bearing acre has increased by quite 40 bushels per acre.

The increase in a decade may, therefore, be measured thus:—

Estimated average increase of 40 bushels per acre on 7,391 acres which had reached bearing age in 1927-28—295,540 boxes per annum.

Estimated yield of 2,348 acres which reached bearing age between 1927-28

and 1937-38 (at 125 bushels per acre)—293,500 boxes per annum.

Giving an average increase of yield in 10 years of no less than 589,040 boxes per annum. (This is almost a 100 per cent. increase.)

Further than this, since 1931-32 there was planted (and therefore yet to come into bearing in 1938-39), no less than 1,788 acres which could be expected to yield a further 223,500 boxes per annum when they reach full bearing.

Before undertaking any further expansion of orchards, growers should study the question of whether still further production is wise or justified at least until means of increased absorption become more evident than at the moment.

Bartlett Pears, 1939.

In our last report we recorded the third successive experience of a very favorable season in marketing Bartlett Pears. That happy experience in 1938 was due mainly to three circumstances, i.e., a moderate crop, favorable climatic conditions, and ready co-operation with the Committee in carrying out its recommendations. Unfortunately in 1939, the latter factor, which was the most important—in view of the record quantity stored—was not apparent. How far this lack of co-operation was due to the work involved in the handling of the excessively heavy Apple crop during the marketing period of Bartletts is a matter of conjecture, but it undoubtedly caused a congestion of the market which was almost disastrous.

The initial stock figures supplied by the Committee as at February 18 showed a total of 15,827 bushels, compared with 11,318 in 1938 and 12,483 in 1937, which was the highest total stored since the Board has been in operation. Immediately this position became known action was taken to acquaint the various districts of the facts with a recommendation that immediate steps should be taken to commence orderly marketing or place their fruit in the hands of their cool store or marketing agent to permit of this being done.

Fortunately the holders of the bulk of the fruit in the metropolitan stores accepted this advice which permitted an early commencement of withdrawals on an orderly scale. Although values in the early part of the season did not attain high rates they were definitely above the average of the whole period.

In spite of repeated warnings, consignments from the Bridgetown store were negligible until the middle of March, when the total stocks held at that centre were more than double the quantity held at the corresponding date in 1938. The Committee again made an urgent request for immediate



Selling fruit by auction at the Metropolitan Markets, Perth, W.A.

attention, with the result that about 50 per cent. of the remaining country stocks were unloaded on the market in eight days—this in addition to the regular metropolitan supplies which could not have been withheld owing to their ripe condition. Much of the Bridgetown fruit was in poor condition, and should have been marketed weeks previously.

In the above circumstances, it is not surprising that values, particularly for ripe lots, were forced to low levels. Even if the whole of the fruit has been in firm condition, the quantity offered was far too great for the ordinary demand. Quite satisfactory rates were obtained for firm, good carrying fruit as at practically no stage of the season was there an oversupply of such grades.

The Storage Experience

In respect of Bartletts held in some metropolitan and country stores was in many instances far from satisfactory. This has been attributed to various causes among which may be mentioned the following—Picking to date instead of maturity of fruit; delay in storage; climatic conditions at time of picking; over-crowding in stores, and insufficient ventilation during storage.

Many growers still persist in wrapping Bartletts for storage. This is a mistake with this variety. It should be packed free of wrapping; paper lining should be used to prevent case marking, but this should be broken at each opening to allow free circulation of air around the fruit.

Recommendations (Bartlett Pears):

1. Pick the fruit at the correct stage of maturity, and not to any fixed date.

2. Do not wrap Bartletts, use paper lining to prevent case rubbing, but this should be broken to permit cir-

ulation of air and allow gases to be drawn off.

3. Store only fruit of good quality. Marked and inferior fruit does not justify storage and hinders the sale of better lines.

4. No Bartletts under 2½ in. and over 2½ in., and only limited quantities of large grades are required. (It is strongly recommended that very small and oversize fruit be marketed ex orchard.)

5. Cool store immediately after picking, but arrange transport to store during early morning or late afternoon to avoid extreme temperatures.

6. Some proportion of even the better lines should be marketed ex orchard.

7. Advantage should be taken of all export and early outlets, especially in years of heavy crops.

Appreciation is expressed for the services of the Hon. Assistant Secretary, Mr. D. J. Sutcliffe.

In conclusion, growers are urged to support the Committee's efforts.

W. AUSTRALIAN APPLES APPRECIATED.

Letter from Consumer in Coventry (Eng.).

It is of interest to note that Messrs. Paterson & Co. Ltd., Perth, W.A., recently received a letter from Mr. W. A. Lowry, of Coventry, Warwickshire, Eng. Mr. Lowry wrote to say that he had received cases of Australian Apples at an hotel, and he was very much impressed and appreciative of the quality and way they were packed. He stated every Apple was sound, and he gave the packer's tag number. The fruit had been packed in Messrs. Paterson's Bridgetown shed. Mr. Lowry also asked for any booklets, etc., on Australian orchards.

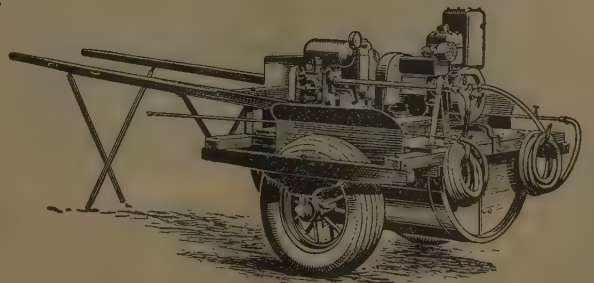
ARE YOU A BOW & ARROW MAN ?

Fighting an Enemy with Obsolete Weapons ?

ERADICATE the enemy pest and increase your profits by investing in a modern, high-speed, high-pressure Ronaldson-Tippett Spray Plant. It will pay for itself before the final instalment is due. All main working parts of both Engine and Pump run in a constant bath of oil ensuring lifelong service with extraordinarily few duplicates. Never before has such fine Spraying Equipment been made available to Australian Fruitgrowers. Made in sizes to suit every possible requirement.

Particulars with Pleasure

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700 Creswick Road, Ballarat, Vic.
SHOWROOMS: 628 BOURKE STREET, MELBOURNE, C.I.



RONALDSON-TIPPETT FRUIT SPRAY PLANTS

WESTERN AUSTRALIA—(Continued)

Survey of 1939 Season

GROWERS ARE URGED TO MARKET SPECIFIED QUANTITIES REGULARLY TO AVOID DETERIORATION AND LOWERED VALUES.

THE MARKETING COMMITTEE of the Apple Sales Board has now examined the stocks of Apples in cool stores at June 30, 1939. The position appears to be very serious, and it is absolutely essential, that no delay arise in clearing stocks; advantage must be taken of every market day from now on if disastrous congestion is to be avoided. To wait longer for improvement of values in many varieties can apparently only mean increased costs and diminished returns; moreover, at the time of writing the market can absorb increased quantities of good quality lines.

Following comprehensive enquiry, it would appear that exports at present planned in excess of normal years from July 1 onwards, approximate:—

To the United Kingdom—25,000 cases. To the Eastern States, up to—15,000-20,000 cases.

Assuming that the whole of these quantities are moved and that shipments to Asia can be maintained on at least as full a scale as in recent years, the total stored will still exceed that of last year by no less than 20,000 to 25,000 cases, or approximately 16 to 20 per cent. Growers will recall that last year's stocks approximated the highest total ever recorded, and the low rates resulting especially for late marketed lots will still be within recollection.

Even after allowing for the significant stimulus to consumption of lower prices and especially of the publicity campaign (with the aid of the Fruit-growers' Association) will be vigor-

ously continued, it is apparent that the total stocks are in excess of any reasonable expectations of demand. It is therefore urged that if further space can be arranged, growers arrange to have at least some of their more attractive lines moved to the Eastern States markets. It would appear essential to deflect at least 10,000 to 15,000 cases to outside markets additionally to quantities already planned for; even with this done a buoyant market is beyond reasonable expectation.

Varieties.

The following comment is in respect of quantities remaining after deducting estimated shipments in excess of normal:—

Yates: A total somewhat higher than that of last year.

Granny Smiths: An all-time record total probably 10,000 cases in excess of last year and 20,000 cases ahead of 1937.

Jonathans: Over 5,000 are still held or more than three times the average total.

Cleopatra: 50 per cent. higher than in any recent year.

Dunns: 66 per cent. higher than last year.

Delicious: Almost double last year. Doherty, Rokewood, Rome Beauty, Democrat: The totals are similar to and slightly ahead of those of recent years.

Statesman, Nickajack: The quantities of these are never large in relation to other varieties, but the totals are well up in proportion to other years.

Sundry Sorts: The total of these shows no relative reduction, although most of them never warrant storage and many are out of date.

Recommendations:

The tremendous lift to an excessive total of Granny Smiths (they will represent almost half of the estimated total for local consumption) must—apart from its effect on that variety—divert demand from and deflate prices for green Apples and for all cookers. Growers are, therefore, specially urged to proceed immediately and continuously with the completion of clearances of Cleos. and Dunns especially, as well as of Romes and other cookers as well as of large-sized fruit generally. With such a huge total, Granny Smiths also must be fed regularly to the market from now on. A big proportion of these are of large sizes and will not keep until late; many are in sulphite wraps and with long storage will scald.

That such an aggregate of Jonathans should still be in store is contrary to all sound practice. Many of these lines have already become unattractive and from the standpoint of condition and of public demand are out of season. Delayed marketing now will mean deterioration. Much the same applies to Delicious, the vast bulk of which, whether or not the public buy them on the reputation of fresher fruit earlier in the season, will have lost their condition within two or three weeks if not already.

An unusually heavy proportion of this season's fruit is of large sizes. This cannot hold as well as medium and smaller sized fruit and delayed marketing may lead to tragedy.

General:

It seems deplorable that in a season such as this with unrestricted absorption of all standard export lines and with a strong overseas demand for consignment lots, that so much exportable fruit should have been withheld additionally to outsizes and lots with hail damage or otherwise superficially below export standard. The

UNWANTED APPLE VARIETIES.

Hints from Western Australia.

MANY UNWANTED VARIETIES of Apples are still grown in W. Aust.: these are even cool stored, but are seldom profitable, states the W.A. Apple Sales Board.

Among the varieties named in this connection are Ballarat (Stewart's Seedling), Five Crown, King David, Spitzenburg, Rymer, Winesap, Commerce, and Ben Davis. It is also stated that there are "numerous others" which are practically unknown to the general public, and do not warrant storage costs.

It is recommended that if still grown these varieties should be sold direct from the orchard—but the concluding hint is just this: "The wise grower has long since changed to more profitable varieties."

situation has, however, to be faced and our work will be to endeavour to alleviate the position. It can be effective, however, only with the fullest possible measure of real collaboration and support.

Conclusion:

In conclusion, growers are urged to arrange with agents for shipping Apples to Interstate markets. Supplies for local markets should be consistent in accordance with market advices. Growers should not delay consignments hoping for better prices, or otherwise deterioration and lower prices are inevitable.

The

Apple Sales Board

is a registered body constituted of:—Messrs. A. C. R. Loaring, Chairman of Directors, Producers Markets Co-op.

Better Packing—Bigger Profits
Use—

"Star" MOULDED FRUIT PADS

(Patent)



Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

SIZES:—12 x 6, 13½ x 6, 12 x 14, 17½ x 8, 17½ x 11.

"STAR" MOULDED FRUIT PADS are made in light grey or royal blue. These colours are fast dyes and will not taint the fruit.

PRICE LISTS UPON APPLICATION.

Sole Manufacturers:—

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Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS
AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association
and Affiliated Association.

City Telephone: F 6444.

Private Phone: M 3035.

Bankers: National Bank of Australasia (Western Branch), Melb.

Royal Melbourne Show

21st to 30th September, 1939

9 DAYS : : : 8 NIGHTS

The Royal Show which attracted last year over 400,000 visitors provides an unequalled opportunity for bringing the industry before the public.

An excellent classification is provided in the Fruit Section.

All entries close,

SATURDAY, 19th AUGUST

For Prize Schedules and Entry Forms write to

LOUIS MONOD, Secretary,

Royal Agricultural Society of Victoria,

422 Collins Street, Melbourne, C.1.

Western Australia

Mt. Barker Fruitgrowers' Co-operative

170,000 CASES OF APPLES AND PEARS HANDLED AT MT. BARKER, PLUS 30,000 AT KENDENUP.

MODERN EQUIPMENT IS INSTALLED IN SUITABLY LAID-OUT BUILDINGS.

This Co-operative Company runs its own Co-operative Store and Generates Electric Current for the Town.

A Striking Example of Self-Help in Rural Enterprise.

AN ALL TIME RECORD in fruit packing was established at the Mt. Barker Fruitgrowers' Co-operative in the 1939 season. The final figures were 170,000 cases of Apples and Pears.

Successful Enterprise.

DURING THE 1939 SEASON, more than 150,000 boxes of Apples and Pears were packed in the central packing shed, thus establishing what is understood to be substantially the largest output of any in the Commonwealth, and at the same time doubling its own highest figures for any previous complete season. An additional 30,000 cases of Apples and Pears were packed at the company's Kendenup shed.

More than thirty years ago the Associated Fruitgrowers Ltd. (now Producers Markets Co-operative Ltd.) established district packing sheds in various centres, one of which became the nucleus of Mount Barker Co-operative Ltd., which is this year celebrating its 21st anniversary. For many years, however, central packing schemes were abandoned, and the first revival was created at Mount Barker only 23 years ago. Each year has seen a steady expansion of its use. Very substantial

extensions were made both in 1936 and 1938, and it is evident that still further extensions must be provided. This is despite the establishment of a branch packing establishment opened this season by the same company at the adjacent centre of Kendenup.

At the present time the Main Packing Shed

covers an area of over 15,000 sq. ft., with extensive frontage both to a railway siding and to a roadway provided for vehicles delivering fruit from the orchards. The same block of buildings houses the Company's 25,000 case cool store with direct access from the packing shed and provision for direct discharge into railway trucks. To protect fruit from unduly high temperatures specially ventilated fibro-cement roofs are used throughout the packing shed.

Lay-out and equipment

have been specially planned on most modern lines adapted by experience to the special work and circumstances. Boxes for packing are despatched from South-West timber mills in bundles of cut and seasoned boards and discharged from rail trucks in the case section, where up to eleven operators are employed in making up cases; additionally, a nailing machine was installed this year and has given splendid results in capacity of output, as well as in cost of manufacture. An electrically driven elevator carries the manufactured cases to an extensive overhead platform where they are labelled and stacked and then transmitted down overhead chutes to elevated racks immediately accessible to the packers.

Handling the Fruit.

The fruit is delivered by motor lorry in the boxes into which it has been picked, and is transmitted by gravity roller conveyor to appropriate positions on the receival floor. Thence it is fed to the hoppers of the grading machines, the empty boxes being carried away on overhead conveyor and stacked with special barrows outside the building for return to growers.

The Apples feed automatically from the hopper to sorting elevators, which turn the fruit for inspection under special 'daylight' electric light fittings, whilst elevating it to the sizing roller. The Apples there travel horizontally along a rubber belt against a rotating sizing roller (sheathed in rubber) of diminishing diameter, which carries the larger fruit the greater distance and thus separates the sizes to variations of $\frac{1}{8}$ th inch diameter.

From each sizing section the Apples are carried either direct or on a rubber belt to the appropriate



Exterior view of portion of the Mt. Barker Co-operative Packing Shed, W.A.

bin where a specially sprung canvas covered base receives and holds them for the attention of the packers. Three electrically driven single-roller double-sided 'Lightning' machines, with an average of 19 bins and each with a capacity of 1,000 boxes in a full day at the height of the season, are installed, together with one smaller unit. The Pears are not mechanically sized, but packed from special bins of which a total of 110 feet is provided.

This season, 34 packers were continuously engaged in the wrapping and packing of the fruit, the highest day's output reaching a total of 3,750 boxes, whilst the weekly output reached over 17,700 boxes, thus as each Apple is individually wrapped in special tissues, some idea of the dexterity developed may be gained from the fact that this represents over 2½ million Apples handled in one week, whilst the season's pack in this shed will total approximately 28,000,000 Apples.

Nailing and Delivery.

The box packed, it is placed on roller conveyor at the packer's side, and thus reaches the nailing press, where the lid is placed and held in position with an even pressure whilst it is nailed.

The complete lidded box is then appropriately branded and conveyed by hydraulic lift trucks to a suitable position on the assembly floor or in cool store to await loading to rail trucks which will convey the majority of such boxes alongside overseas vessels at Albany for discharge into ship's slings.

And so commences the journey in the floating refrigerator which is to carry it to the other side of the world. Official inspection has been undertaken by Commonwealth officers throughout the progress of selection and packing, and those responsible can properly feel that no better effort could reasonably have been made to uphold and improve the reputation of this important industry and of Western Australia.

The Mount Barker enterprise has been built up by the orchardists in

the district, who own, control, and utilise it.

Among the other activities, are included the production of electric current for the town as well as for its own requirements; a substantial and up to date general store; and its own sales organisation, both local, and in conjunction with a sister co-operative organisation, overseas also, thus affording a splendid example of the possibilities of self-help amongst agricultural communities.

W.A. PUBLICITY CAMPAIGN, 1939.

Interim Report.

AS part of the report of the W.A. Apple Sales Board, an interim report on the 1939 Publicity Campaign has been prepared by the W.A. Fruit Publicity Committee.

The following are members of the Sub-Committee appointed for publicity work:—

Mr. T. Price (Chairman), Messrs. F. W. Lantzke (Deputy Chairman), G. Bloomfield, R. M. Carter, G. S. Langley, M. J. Scanlan, F. Simper, H. W. Soothill and D. J. Sutcliffe. Messrs. J. McNeil Martin and W. P. Scott were appointed as ex officio members at the commencement of the season. Mr. C. K. MacKenzie, who was previously employed in a similar capacity in the 1936 campaign, was again appointed Organising Secretary to the Committee.

The W.A. Fruitgrowers' Association made a grant of £100 to enable a commencement to be made in mid-March.

Up to July 55 schools have been visited in the metropolitan area, at which the attendance of children totals (approx.) 20,000. In addition, distributions have been arranged at Fremantle, Geraldton and Kalgoorlie schools.

The Committee is of the opinion that apart from the newspaper publicity accruing from this work, the impression made with the children themselves has been of inestimable benefit, and will continue of value long after the close of the present campaign.

(Continued from page 14.)

Ltd. (Chairman); J. Thomson, General Manager, The Westralian Farmers Ltd.; A. P. Sharpe, Chairman of Directors, Bridgetown Branch, The Westralian Farmers Ltd.; J. McNeil Martin, Chairman of Directors, Mt. Barker Co-op. Ltd.; C. W. Harper, Chairman of Directors, The Westralian Farmers Ltd. (as Chairman of the Executive).

The Executive to the Board includes:—Messrs. C. W. Harper, B. Hickling, Local Manager, Mt. Barker Co-op. Ltd.; D. Cansdale, Manager, Albany Branch, The Westralian Farmers Ltd.; F. Simper, Fruit Department, The Westralian Farmers Ltd. (representing Mr. J. Thomson); H. W. Soothill, General Manager, Producers Markets Co-op. Ltd.; D. C. Thomson, Manager, Bridgetown Branch, The Westralian Farmers Ltd.

The Marketing Committee is constituted as follows:—Metropolitan Members: Messrs. T. Price, Managing Director, Illawarra Orchard Ltd., Karragullen (Chairman); W. J. Berryman (Berryman & Langley Ltd., Perth); R. M. Carter, Manager, Fruit Department, Paterson & Co. Ltd., Perth; G. S. Langley (W.A. Fruit & Produce Market); F. W. Lantzke (F. W. Lantzke, Perth); M. Scanlan (Scanlan & Simper Ltd., Fremantle); F. Simper, Fruit Department, The Westralian Farmers Ltd., and H. W. Soothill. Country Members: Messrs. J. Cross, Secretary, Argyle Fruitgrowers' Assn.; A. C. Hickling, Asst. Local Manager, Mount Barker Co-op. Ltd.; D. Cansdale; D. C. Thomson.

Mr. H. W. Soothill is the Honorary Secretary of the Board and of the Executive and Marketing Committee, with Mr. D. J. Sutcliffe as Hon. Assistant Secretary and Mr. F. A. Jaggard Hon. Accountant.

Phone: After hours:
Epping 96. Epping 58.

FRUIT TREES

We have large quantities in all leading varieties.

— Book early to avoid disappointment. —

Our ROSE PLANTS are outstanding

KUNDE SECATEURS, BUDDING AND GRAFTING KNIVES AVAILABLE.

L. P. ROSEN & SON

"Fernhill Nurseries", Pennant Hills Road - Carlingford, N.S.W.

CATALOGUE
FREE
on
Application.

ESTABLISHED 1901.

By arrangement with the National Broadcasting Station, regular weekly talks were broadcast by prominent citizens and publicity was given during women's sessions. Other publicity features included posters, Apple float in Labor Day Procession, development of campaign in Geraldton and Kalgoorlie. Appreciation was expressed to the press for their continuous support.

Pleasing Results.

It is a most difficult task to gauge the actual results attained by this work; any improved demand being slow in its effect on market values under conditions of heavy supply. The persons best able to judge the effect are the retailers who contact the buying public and these without exception are in agreement that the publicity methods undertaken have been of undoubted benefit in stimulating the demand and making the public "Apple Conscious."

That this is so is further evidenced by the regular clearance of the market in spite of sustained heavy forwardings and without any noticeable weakening of public enquiry: At no stage has the market been unable to cope with the exceptional quantities on offer. This very satisfactory experience has been facilitated, however, by the generally improved standard of the quality of the fruit.

Australian Apple and Pear Board

THE SECOND MEETING of the Australian Apple and Pear Board was held at the Commercial Travellers' Club, Melbourne, from July 26 to 28, 1939, inclusive.

Members present were Messrs. T. Burnaby, W. H. Calvert, M.L.C., D. E. Ryan, L. S. Taylor and R. W. Humphreys (Tasmania); W. Young, W. P. Hutchinson, and J. B. Mills (Victoria); M. Vickers and P. R. B. Searcy (S. Aust.); and H. W. Soothill, W. P. Scott and R. M. Carter (W.A.). Mr. A. U. Tonking (N.S.W.), and Mr. B. Flewell-Smith (Queensland) were unable to attend, and Mr. E. Ray (N.S.W.) was co-opted to represent N.S.W. growers.

This being the annual meeting, the first business was the appointment of the Chairman and Executive Committee for the forthcoming 12 months. By the unanimous decision of the meeting Mr. J. B. Mills was re-elected as Chairman, and the members of the Executive re-appointed as follows:—

Messrs. J. B. Mills (Chairman), Taylor, Young, Vickers, Soothill and Humphreys (Mr. D. E. Ryan co-opted in an advisory capacity).

Appointment of Secretary.

After most careful consideration Mr. H. A. Baker, B.Com.M.M., was

selected from a large number of applicants. Mr. Baker has been a well-known member of the staff of the Department of Agriculture in Victoria, acting in the capacity of Commercial Officer and was formerly Secretary to the Victorian Dried Fruits Board, and acted as Chairman to many Commodity Boards.

Arrangements have been made for Mr. R. E. Boardman, Secretary to the Apple and Pear Council, to assist Mr. Baker with the early organisation of the Board's work.

Office accommodation has been secured on the first floor of the Co-operative Insurance Buildings, 528 Collins-street, Melbourne.

Preliminary consideration was given to the system to be adopted in connection with the

Control of Shipments,

but no decision was reached. After further investigation by the Executive Committee, the matter will come before the next meeting of the Board.

In connection with the arrangements for the collection of data and

Allocation of Shipping Space,

the Board desires that the respective organisations in the States should give consideration to the matter under the following headings:—

- (i) The governing principles of shipping programmes.
- (ii) The forecasting of freight requirements and the negotiation and acceptance of vessels.
- (iii) The allotment of space (or quota) to individual growers.

Pear Export.

At its meeting in 1938 the Australian Apple and Pear Council recommended that after 1939 season certain varieties of Pears should be eliminated from the list approved for export to the United Kingdom. This decision was re-opened at the Board meeting by a request from South Australia that the proposed prohibition should not be enforced against Williams Bon Chretien.

The consensus of evidence was held to show that whilst this variety could be successfully exported under some circumstances, generally it was unsatisfactory. The Board was therefore unable to agree to this alteration to the proposals. It was decided, however, to recommend to the Department of Commerce that Giblin's Seedling should be substituted for Duchess d'Angouleme on the U.K. list, and to collect information regarding the stability and value of the permitted varieties with a view to further reductions when the appropriate time arrives.

It was agreed that there would be

A Joint Meeting

of members of the Australian Apple and Pear Council and of the Board to arrange for the transfer of the work from the voluntary organisation to the statutory body. Such a meeting should provide a valuable opportunity for a full discussion of the various phases of the Board's future activities at a widely representative gathering. This joint conference will be held about the end of September, and full details of the arrangements will be communicated to the respective organisations direct.

By resolution the Board expressed its appreciation to the Department of Commerce for making available the services of its officers to assist in its deliberations, and wishes to refer to Mr. E. McCarthy for his advice and particularly to Mr. E. S. Dusting for his unfailing courtesy and initiative as Secretary—pro tem.

NEWS IN BRIEF.

Growers in the Shepparton district are advised that there will probably be a severe infestation of green aphids in the coming Spring. A tar distillate spray is advised.

Prospects for the coming season's crop are reasonably good in the Goulburn Valley states the district correspondent of the "Fruit World."

Apple buds in Tasmania are well budded for a good crop in the coming season. Pears are lighter.

Complaints are heard in Tasmania regarding the detection of fruit and the causes assigned for rejection. An Appeal Board has been requested.

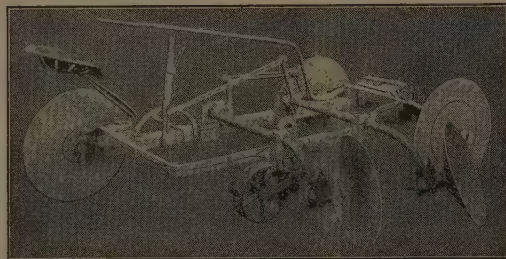
The Tasmanian State Fruit Board has made its Defence Funds available for contesting a claim against a shipping company for alleged faulty carriage.

The wrapping of Bartlett (W.B.C. or Duchess) Pears for local market, is not recommended by the W. Aust. Marketing Committee.

Interesting details regarding world trade in canned food are given in the article in this issue.

"HILLMAN" ORCHARD STRIP PLOW

Double Furrow



The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

Further particulars apply . . .

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Implement Manufacturers

Shipley Street, Box Hill, Melbourne, E.11

ARE YOU

GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was THE "MONKEY" GRUBBER.

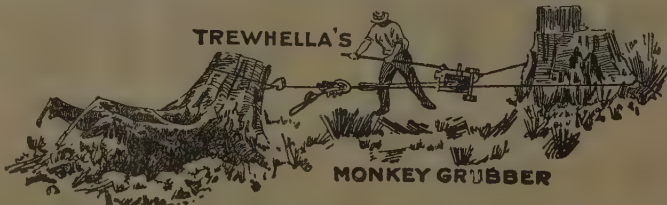
It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

H. H. HINDS,
225 Clarence Street,
Sydney.

A. G. WEBSTER,
& SONS,
Hobart & Launceston.

TREWHELLA'S



MONKEY GRUBBER

REX ROBINSON,
83 Gipps Street,
Brisbane.

Leading Stores and
Merchants, South and
West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

Tasmanian News and Notes

WEATHER DELAYS CULTURAL OPERATIONS — FAULTY CARRIAGE OF FRUIT — IMPROVED TRANSPORT NEEDED — CLAIMS TO COME BEFORE COURT — INCREASED SALES OF APPLE JUICES — COMMITTEE OF APPEAL AGAINST DETAINED FRUIT — STRICT INSPECTION — MR. COSGROVE NO LONGER MINISTER FOR AGRICULTURE.

(By Our Correspondent.)

THE WEATHER during the past month has been wet and cold. In the north frosts and fogs have been heavier than usual with frequent rain in between. As a result pruning, etc., is being delayed to some extent and Winter ploughing in many orchards is out of the question until the land drains a bit.

Crop Prospects.

The Pear trees on the average seem to be lightly budded, which is to be expected after a heavy crop and the dry conditions which prevailed during last Autumn.

The Apple trees appear to be well budded, as, having had a light crop last season they were not affected so much by the dry conditions prevailing during the Autumn.

In the southern districts Pears seem to be lightly budded, but the Apples on the average promise well.

As in the north, pruning and Winter ploughing are being delayed by the broken weather. The past month has been cold and snow has fallen on the lower hills on several occasions.

Tasmania's total crop for the 1939 season exceeded earlier forecasts as large areas of young trees and those that have been reworked are now coming into bearing. This makes it difficult to give an accurate forecast.

Fruit held in the sheds is now almost finished, and from the end of the month on the market will depend on the cool stores for supplies.

Returns from oversea markets are now coming in, and while some are very satisfactory, the percentage of

faulty carriage

is higher than it should be, and will pull the average down.

The "Largs Bay" appears to have frozen a portion of her cargo, which was condemned by the Health Authorities. So far the ship's owners repudiate responsibility. Some parcels of Pears are reported to have arrived over-ripe, but whether this is due to faulty precooling, late picking, or faulty carriage, is hard to say.

The general out-turn of the season's exports seem to have been fairly satisfactory. The faults mentioned in the various reports appear to be largely due to delays in shipment, transit and delivery. Until these delays are reduced to a minimum the faults in fruit on arrival will keep on recurring, causing serious loss to the growers. Tasmania apparently suffers more than any other State from the causes mentioned, which to a large extent can be prevented by co-operation on the part of all concerned.

I understand that the case against the "Trojan Star" (or "Viking Star") and the "Jervis Bay" (which is a claim for compensation for alleged faulty carriage) is listed in the court of first instance for some time in July. The State Fruit Board made the defence fund available to contest the case. The decision will be awaited with interest by all concerned.

Under modern conditions of refrigeration there should be little risk of bad carriage, but some of the boats appear to be fitted with systems which are unsuitable for the fruit trade and should be kept for other cargo.

:: :: ::

The canning and drying works experienced some difficulty in obtaining adequate supplies of suitable fruit.

The Southern Tasmanian Co-op. Society, which makes the "Mercury"

brand of cider, has finished crushing for the season. Sales of this popular brand are increasing rapidly. The manufacture of fruit juices is receiving considerable attention, and I understand that a new company is being formed to handle all these products.

Overseas Fruit Inspection.

Owing to numerous complaints from growers who allege that they had fruit detained for ridiculous reasons, the State Fruit Board, at its last meeting, decided to ask the Minister to allow a committee of appeal to deal with cases where fruit is detained for technical reasons.

It appears that lines of good fruit were detained for such trivial faults as variations in size of one-sixteenth of an inch, which was called "incorrect pack" or sometimes "irregular sizing," while whole consignments were detained for alleged "slack pack" when the average was 44 lbs. to 46 lbs. nett weight.

Several errors of judgment appear to have been made by detaining fruit as "over-ripe," as the fruit in question was held out of cool store and remained in good hard condition until the ship it should have gone in had arrived at her destination.

As this class of detention inflicts heavy losses on individual growers and tends to ensure a maximum amount of stale fruit arriving on the overseas markets owing to unnecessary delay in shipment, it appears to be a matter that the Control Board should take up. At present there is no appeal against these decisions.

Probably this class of trouble is caused by two or three over zealous inspectors. Several consignments were rightly stopped owing to damage by rats, which is more prevalent since the exaggerated crown pack came into use. It would appear that the ease with which the rats can get in and out of the cases and all through the stocks is sufficient reason to discontinue the extreme bulge.

Tasmania has been visited by a rather bad epidemic of influenza, which in many instances has resulted in pneumonia and pleurisy, and several deaths have occurred.

The international situation is still causing doubt and anxiety in the industry.

Owing to the death of the Hon. A. G. Ogilvie, K.C., it has been necessary to re-arrange the Cabinet, and we regret to learn that the Hon. Robert Cosgrove, Minister for Agriculture, will vacate that office. He always took a keen interest in everything connected with the Department and inaugurated several very important activities, such as packing classes for children leaving school, and a system of district instructors and inspectors, besides helping to establish several industries on a co-operative basis.

MONTHLY ORCHARD NOTES

THE Hon., the Minister for Agriculture (Mr. T. D'Alton) is in receipt of the following information from the Chief Horticulturist (Mr. P. H. Thomas), relating to the condition of orchards and general progress of seasonal work.

Weather.

Unusually heavy rains have been experienced since the last report and orchard work has been held up to some extent in consequence. No early frosts of any intensity were experienced in Southern districts and trees have been holding their leaves much longer than is usual; in the North, however, frosts have been more general. The following figures obtained from the Commonwealth Weather Bureau show the rainfall for representative centres during June:—Hobart 405 points, compared with the average of 225; Launceston 376, compared with 325, and Franklin 603, compared with 339.

Cultivation, Pruning and Re-working.

Examination of the trees shows that fruit bud formation is considerable on almost all varieties and bud thinning will have to be extensively carried out.

"Dieback" is more prevalent than was anticipated and growers are advised to cut out all infected spurs and branches and treat the exposed surfaces with Glycerine-mercuric mixture, particulars of which may be obtained on application to the Department of Agriculture.

Following the severe infestation of Codling Moth, every endeavour should be made to reduce this pest during the winter months—destruction of the chrysalids in and around packing sheds, treatment of picking cases with boiling water, and tree bark scraping are again brought to the notice of growers.

All prunings from trees should be collected and burnt, by doing this the sources of much trouble will be removed and disease reduced accordingly.

All scions for reworking purposes must be carefully selected from healthy trees, bundled and heeled in, in a cool shady spot. Where a protracted grafting season is anticipated scions are best retained in cool store where they will keep satisfactorily until December if necessary. Care must be taken, however, to ensure that they are not subjected to continuous air currents.

It is requested that growers advise their District Orchard Inspector of their scion requirements at the earliest possible opportunity. By doing this the Inspectors are enabled to estimate the quantities well in advance and obtain and cool store these at convenient times.

Spraying.

The spraying season usually commences in earnest at the beginning

of August and growers are overhauling their machinery and in many instances installing additional pipe lines and central plants. Observations indicate that more oil spraying will be carried out during the dormant period than was the case last year. The later oil is applied prior to actual bud burst, the better the kill of eggs obtained; strengths of 1-15 are recommended.

In the August issue of the Tasmanian Journal of Agriculture a list of registered dealers and pesticides will be found. The 1939 spraying charts are available at the offices of the Department of Agriculture, Hobart and Launceston and from the Orchard Inspectors stationed in the different districts.

Requests have been received from different areas as to the most effective way of protecting fruit trees against rodents. When wire fences are impracticable sulphonated oil is recommended. This is prepared by heating 9lbs of linseed oil until smoking hot (470 deg. F.), and slowly stirring in 1lb flowers of sulphur. This should be done outdoors, and after the solution has cooled it may be applied to the trunks with a brush.

Stone Fruits.

Apricot and Peach pruning is now practically completed and at the start of sap flow next month spraying will be commenced. Where shot-hole has been present, a Bordeaux application is recommended.

Peaches subjected to aphid infestation should be given an immediate spraying with tar-distillate for aphid control.

All mummied fruits and gumming fruit spurs should be removed and burnt as these constitute sources of Brown Rot infection of a serious nature.

Apricot limbs affected with "dieback" should be cut well below the dead area, so that healthy wood is showing; treatment of the exposed surfaces with glycerine-mercuric solution is recommended.

Berry Fruits.

Wet weather has seriously hampered work in these plantations especially where single centre drainage furrows were not drawn out in Autumn. Raspberries are particularly susceptible to injury from water and must receive immediate attention.

It is both impracticable and inadvisable to continue planting out Strawberries during the cold wet months, and, except in warm sandy areas, this should be discontinued until the end of August.

The distribution of Strawberries and other berry fruits has been completed for this season and remaining orders for bush fruits will be despatched during the next few weeks. Almost all varieties were overbooked, the dry season causing considerable loss amongst cuttings.

Apiaries.

Registrations under the Apiaries Act, are steadily coming in and those growers who registered previous to this season are asked to co-operate with the Department in bringing hives and honey production statistics up-to-date by completing the forms forwarded to them.

Packing Classes.

State School packing classes are now being conducted in 45 different centres, nearly one thousand adults and children receiving instruction. A marked improvement is evident in the standard of presentation grading and packing of exports which is largely due to the work of previous years.

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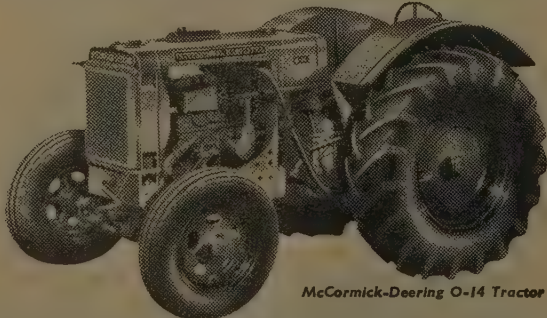
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CANNED FRUIT NEWS

World Trade in Canned Food

PROMINENCE OF UNITED KINGDOM MARKET.

PROGRESS OF EMPIRE PRODUCTS.

IMPERIAL ECONOMIC COMMITTEE'S SURVEY.

THE COMBINED EXPORTS of the five main groups of canned food (fruit, vegetables, fish, meat, milk and milk products) from the chief producing countries now exceed 24 million cwt. annually. Two-fifths of that total are shipped to the United Kingdom. Although U.S.A. is the largest producer and consumer of most canned goods, the prominence of the U.K. as an import market is evident in the "Survey of the Trade in Canned Food" issued by the Imperial Economic Committee.* Thus, to quote a few of many examples, 85 per cent. of the canned salmon exported from the United States, 88 per cent. of the canned vegetables from Canada, 83 per cent. of the canned fruit from Australia, 60 per cent. of the canned meat from Uruguay, and 73 per cent. of all the canned fruit entering world trade, go to the United Kingdom.

*H.M. Stationery Office, London: 2/6 net, 2/9 post free.

Canning no Remedy for Gluts.

THE IMPERIAL ECONOMIC COMMITTEE has recently issued a survey reviewing the international trade in each of the five main groups of canned food over the period 1932-37, with special reference to Empire supplies and the United Kingdom market.

In the main the picture is one of expansion and progress, but the Committee have added a warning against the assumption that canning is an easy means of dealing with surplus produce or bumper crops. The canner needs a supply that is regular in volume and uniform in quality, thus the cultivation of definite "canning" varieties of fruit and vegetables is now common. The standard of selection at the cannery is rigorous, particularly in times of glut.

Canning is still speculative. A heavy pack may mean a heavy carry-over of stock, and weak prices. The canning season is short, thus complicating labor supply. Overheads may be reduced by canning a variety of products, but the scope is limited. Thus the uneven bounty of nature may be as serious a problem for growers and packers in the canning industry as in any other branch of agricultural production and trade.

Value of Canned Food.

Canned foods (says the report) now sell on their merits and not as a mere substitute.

Among the virtues of canned food, the report stresses the freshness of the material and the rapidity with which it is packed. An example is quoted from Hawaii, where the whole process, from the arrival of the fresh Pineapple in the factory to the moment when the can, filled, sealed and processed, is ready for the store-room, takes 15 minutes.

Old and New Favorites.

Despite the infinite variety of canned products now on sale, a few old favorites still dominate the trade. Sardines make up a half and salmon a quarter of the world exports of canned fish. Tomato products provide three-fifths of the exports of canned vegetables, and Pineapple at least a third of the exports of canned fruit.

Among the newer kinds that have found favor are Mandarin Oranges and Grapefruit. Interesting too, is the progress of the free-stone Peach.

The Committee report that they have been impressed by the high opinion held by experts concerning the canned free-stone Peaches coming from Canada, on account of their superior flavor, which is nearer that of the fresh Peach than is the flavor of the better-known Clingstone variety.

Developments in U.S.A.

SPECIAL SECTIONS in the Survey review the remarkable development of canned fruit juices and Tomato juice in the United States, and also that of frozen fruit and vegetables.

The juices, it is observed, are quite different from fruit cordials, since they are the full and natural juice of the fruit and are taken neat as a food, and not diluted as a beverage. Nearly three million cwt. of Tomato juice, and nearly four million cwt. of fruit juices are now produced in the United States, the most popular being Tomato juice and Pineapple juice.

Empire Progress.

About half the world export of canned fruit comes from the United States.

The largest export in the Empire is that of Malayan Pineapple, amounting to 1½ million cwt. Except for Hawaiian shipments to the domestic market in the United States, this is the heaviest export of any one kind of fruit, and represents a quarter of the total canned fruit entering international trade.

In Australia the industry has made remarkable progress. Exports have risen from 316,000 cwt. in 1932 to 579,000 cwt. in 1937, an increase of 83 per cent. in five years. The chief kinds exported are Peaches, Pears and Apricots, and for these Australia is now easily the second largest exporter in the world.

Canadian exports have increased from 92,000 cwt. to 240,000 cwt. The export from South Africa, smaller in volume, made progress up to 1936, but has since declined to about 34,000 cwt.

The rapid development of fruit canning in Empire countries in recent years has coincided with an expanding market in the United Kingdom, where Empire imports have increased in spite of foreign competition. In some cases the increase has been large. Thus the average annual import of canned Peaches from Australia rose from 118,000 cwt. for the period 1930-33 to 239,000 for 1934-37.

The average import of canned Pears from Canada rose from 28,000 cwt. to 71,000 cwt., that of canned Apricots from South Africa from 11,000 cwt. to 21,000 cwt., and that of canned Pears from Australia rose from 77,000 cwt. to 173,000 cwt. The average import of canned Pineapple from British Malaya, already as high as 722,000 cwt. for 1930-33, rose to 862,000 cwt. for 1934-37.

Foreign Progress With New Fruits.

British Malaya provides 90 per cent. of the United Kingdom imports of canned Pineapple, but for most kinds the United States is still the largest single supplier (51 per cent. of the total in 1938), and has shared in the upward trend, decreases in some fruits being offset by increases in others.

In a detailed analysis of the imports, the Committee distinguishes

Goulburn Valley News and Notes

HEAVY RAINS ASSURE SUPPLIES FOR IRRIGATION — CULTURAL NOTES — WARNING TO SPRAY FOR GREEN APHIS — SPRAYS FOR APRICOTS, PEACHES, BLACK APHIS, AND PEARS, ETC. — ARDMONA FRUITGROWERS' ASSOCIATION ANNUAL MEETING — OFFICERS ELECTED — STRICTER GRADING IN CANNING — TINPLATE TARIFF — £3,000 FOR DRAINAGE WORKS — MR. F. J. PICK, NEW SECRETARY FOR SHEPPARTON FRUIT PRESERVING CO. — MR. J. McDONALD APPOINTED WORKS MANAGER OF ARDMONA FRUIT PRODUCTS CO-OPERATIVE LTD.

(By Our Correspondent.)

THE WEATHER FOR JULY has been mild with several heavy frosts which would have a sweetening effect on the soil after the heavy rains. Up to June 30, the rainfall in the Goulburn Valley was 21 inches, which is a record for the five months since the drought broke in February last. The Goulburn River has been in heavy flood and all the storage basins and reservoirs are filled to full capacity, thus assuring plentiful supplies for next season's irrigation.

Work in the orchards has been carried out during the Winter months under very unpleasant conditions, owing to the abnormal undergrowth and the wet nature of the soil. All surplus water has had to be drained from the land, and in many cases some orchardists have been pumping the surplus water into the irrigation channels for weeks past; however, conditions now are rapidly improving.

Fruit Prospects.
The prospects for next season's crop of fruit are reasonably good. Apricots and Pears are showing well-developed buds, and should blossom well. Young Peach trees are showing a plentiful supply of buds, but older trees are showing the effects of the drought and the heavy crop borne last season; the fruit wood is rather scraggy, and fruit buds not so plentiful.

Cultural Notes.
Pruning is progressing satisfactorily: but there is a lot of work still to be done.

Growers have been advised that there will probably be a severe infestation of green aphid in the coming Spring, and all have been busy during the last week spraying their Peach trees with tar distillate spray, which should be completed not later than the end of the month. As this spray is very severe on the hands and



Plum trees in an orchard in the North East of Victoria.

(Illus. courtesy Victorian "Journal of Agriculture.")

face, workmen are advised to smear the face and hands with castor oil as a preventive from burning and irritation.

Aphis Feared.

At a meeting of the Shepparton Fruit Growers' Advisory Committee held early in the month, the following circular to orchardists was prepared.

Apricots.

For the control of shot hole: two Bordeaux sprays (6-4-40 mixture) should be applied; the first to be completed by the middle of July and the second spraying at the pink bud stage. Owing to the favorable conditions for the development of fungus diseases, it is strongly recommended that the full programme be carried out.

Peaches.

There are indications of the probability of a serious infestation of green Peach aphis, and it is strongly recommended that all Peach trees be sprayed with tar distillate. The greatest cure must be taken to ensure that all tips of branches are sprayed as sufficient eggs will be left on a single twig to infest the whole tree. This spray should be applied during July and finalised not later than July 22.

Black Aphis.

Any trees affected with black aphis should be attended to immediately with a spray of nicotine and soft soap. It has been found that a beneficial method of controlling this pest, is the encircling of the butt of the tree at the ground level with fresh tobacco waste.

Pears.

The Committee urges that all chemical bands be removed and destroyed, and bag bandages be examined and all grubs destroyed. All loose bark should be scraped off and forks of trees cleaned out and all hibernating grubs destroyed. All rubbish about the butts of the trees should be removed.

When pruning be sure to saw off all broken ends of branches, which may harbor grubs.

Special attention should also be given to Quince trees.

Ardmona Fruitgrowers' Association Annual Meeting.

The annual meeting of the Ardmona Fruitgrowers' Association was held in the Ardmona Hall on July 12: there was a good attendance of growers.

The popular President, Mr. W. Young, was again elected President for the ensuing twelve months. Other officers elected were:—

Mr. J. D. Simson and Mr. J. Pearson (Vice-Presidents); Mr. S. P. Cornish (Secretary); Mr. V. R. McNab, Mr. J. D. Simson, Mr. H. Lenne and Mr. J. Pearson (Delegates to Northern Victoria Fruitgrowers' Association).

The balance sheet of the Association showed that the finances were in a very sound position. Much credit is

due to the energetic and hard-working Secretary, Mr. S. P. Cornish, who has rendered valuable service to the fruit growing industry for many years.

Stricter Grading.

Addressing cannery suppliers at Kyabram recently, Mr. H. Gent, chairman of director of the Kyabram Co-operative Fruit Preserving Company, said that he considered it unlikely that the carryover of Peach stocks, would adversely affect next season's canning programme.

Mr. Gent said stricter grading rather than a reduction of the tonnage to be handled might be necessary, by increasing the size of the "Goodmans," "Phillips" and "Golden Queen" Peach from 2½ to 2¾ ins.

The company was engaged in a rearrangement of processing plans, and an additional 30 oz. Peach processing limit would be available. To maintain a balanced pack, more Pears were required—about 50 per cent. of Pears to Peaches.

Tinplate Tariff.

The industry was definitely opposed to tariff assistance to the tinplate industry, or an embargo on the importation of tinplate from Britain, and the exportation of canned fruit to the United Kingdom. The market had led to a reasonably balanced trade, and the canning fruits industry would provide greater employment than the tinplate industry was ever likely to.

Tariff Report on Tinplate.

Because of lack of evidence of production costs in Australia, the Tariff Board is not expected to make specific recommendations in its special re-

CANNED FRUIT NEWS—(Continued).

two groups of canned fruit. In the first (consisting of Pears, Peaches, Apricots and Pineapple, and constituting about ¾ of the total import) Empire supplies have made progress and hold a strong position.

The second group (chiefly fruit-salad, Grapefruit and Mandarin Oranges) comes almost entirely from foreign sources. It is this group (says the report) that has made the greatest advance, both relatively and absolutely, in recent years, though the effect has been less noticeable because the market as a whole has been expanding.

Exports of canned Grapefruit from U.S.A. to the United Kingdom rose from 59,000 cwt. in 1932 to 279,000 cwt. in 1937.

The United Kingdom imports of Japanese canned Mandarin Oranges have risen from 80,000 cwt. in 1934 to 203,000 cwt. in 1937 and 263,000 cwt. in 1938.

Canadian Tomatoes.

The Tomato is the favorite among canned vegetables. Italy, the chief producer, leads the export trade, but the canning of vegetables (and particularly Tomatoes) has recently made great progress in Canada. There is a large home market, and exports represent less than a fifth of the output, but exports of canned vegetables

(half of which are Tomato products) from the Dominion have risen from 90,000 cwt. in 1930 to 770,000 cwt. in 1937. The Canadian products go almost entirely to the United Kingdom, where they now constitute about 37 per cent. of the canned vegetable import.

Canning in the United Kingdom.

Canning of fruit in the United Kingdom now covers almost the whole range of home-grown produce, and the range of locally canned vegetables is also very wide, much wider than is commonly supposed. The progress of the local industry has thus further extended the housewife's choice of canned foods. The "National Mark" schemes, though voluntary and restricted in scope, have led to a general improvement in the average standard of quality.

Lack of adequate official data makes it difficult to estimate the share of local products in the total supply, but at least half the canned vegetables, one-tenth of the canned fruit, and nearly three-quarters of the "full-cream" canned milk, are produced locally. On balance the United Kingdom is a large importer of canned milk, but exports of locally canned milk (which go almost entirely to Empire countries) exceed 320,000 cwt.

CANNED FRUITS EXPORT.

1,014,080 Cases During Last Six Months.

According to a report to hand from the Australian Canned Fruits Board, the following number of cases of canned fruits have been exported from January 1 to June 30, to various countries:—

Country.	Apricots.		Peaches.		Pears.		Fruit-salad.		Pineapples.		Total.
	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	
U.K.	115,190	525,539	272,914	127	22,968						936,738
N.Z.	5,997	16,760	999	32	506						24,294
Canada	5,072	20,487	2,037	1,876	10,507						39,979
East	1,453	4,833	3,171	508	35						10,000
Misc.	410	820	1,284	61	544						3,069
TOTAL	128,122	568,439	280,355	2,604	34,560						1,014,080

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NEW SOUTH WALES NOTES

Murrumbidgee Irrigation Area Notes

RECENT SURVEY OF M.I.A. RESOURCES — WIDE RANGE OF PRIMARY PRODUCTS — HARVESTING OF ORANGES — N.Z. GOVERNMENT'S EXPERIMENTS WITH RARATONGA ORANGES — EFFECT OF SEASONAL CONDITIONS ON ORANGES AND LEMONS — APPEARANCE OF OLEOCELL-
LOSIS OR RIND OIL SPOT — RESEARCH PLOTS NECESSARY — ORIENTAL PEACH TIP MOTH BAN — ARRANGEMENTS FOR PROCESSING FRUIT.

(By Our Correspondent.)

TA K I N G THE LONG VIEW, the most important event of the past month on the Area, was the survey of the district which was made by Federal Defence Officers.

Mr. C. Massey, Chairman of the Defence Food Supply Committee and Director of Victualling for the Australian Navy, accompanied by Col. B. Morris, a member of the Committee and officer in charge of movement of land forces, visited the Area, and after an intensive investigation, conferred in Leeton with leading authorities from every Sphere of Primary and Secondary production.

In the event of an attack upon the coastal cities it would be highly desirable to move large numbers of non-combatants to inland zones, of comparative safety from raiders and in view of the surety of water supplies and large quantities of food stuffs, no district is more appropriate for such a purpose than the M.I. Area.

In addition, the Committee of Food Supply would require inland production of essential foods for the rationing of our coastal defence forces, and the figures given to the committee of the present and potential resources of supply were highly illuminating on the value of this district as a national asset.

With the exceptions of Bananas and Sugar, practically every type of foodstuff grown in Australia can be produced on the Areas in large quantities.

It was stated that there are at present, 9,000,000 sheep; 575,000 cattle, and 20,000 pigs, depastured within 75 miles of the South West Meat Treatment Works at Yanco and that if irrigated pastures were more widely developed these figures could be increased many times.

Adequate plant already exists at Leeton Cannery and in various packing sheds to process and pack enormous quantities of fruits and vegetables, either fresh or canned, or dried. The Area is the centre of a wheat growing district, which possesses two flour mills and many huge storage silos. The production of rice is about double that of the entire present consumption of the Commonwealth and this could be doubled. Adequate timber resources are available for containers for food storage and a large volume is also available for production of charcoal for producer gas. Over a million gallons of wine and spirit is grown and made locally and much of the latter could be added to power alcohol internal combustion engines. The Area has proved highly capable of production of all dairy and poultry products.

Transport Communication is good, Leeton, Griffith and Narrandera being centres from which rail communication radiates to most parts of N.S.W. and also to Victoria and South Australia. Coal is available at Oaklands, 50 miles away, whilst the whole district is already electrified from Yanco power station.

Mr. Morris stated that he knew of no part in Australia that could, should the necessity arise, be of such great use to the committee in additional production as the M.I. Area and surrounding district.

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Harvesting of Navel Oranges.

has been proceeding steadily and approximately 50 per cent. of the crop had been sold by mid-July. Satisfactory shipments of Oranges and Lemons have been made to New Zealand and a fair quantity of Lemons and Grapefruit has been absorbed by cordial factories in Sydney and Melbourne, also the Leeton Cannery.

The navels, as stated last month, are on the large size and some little difficulty has therefore been met by packing houses in supplying N.Z. requirements for medium sized fruit.

It is believed that the N.Z. Government, which effects all purchases of citrus fruits entering the Dominion has experimented with Oranges from Raratonga and has had its fingers burnt. These Oranges, it is understood are transported from the trees conveyed in bags by the natives to lighters, and thence to the ships side. Whether this treatment has proved too rough, or whether the island fruit is of poor keeping quality, is not known here but the fruit is reported to have arrived in N.Z. in bad condition.

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Seasonal Conditions.

THE PRIMARY PRODUCER is always at the mercy of weather conditions. The fruit grower's products in particular are very sensitive to the vagaries of temperature and moisture, of wind and hail. The year 1939 was, thus far, has been abnormal for heat, rain and cold, and, as might be expected, these conditions have left their marks (in more ways than one) on our fruits.

As a resident for the past twenty years, your correspondent cannot recall similar extremes on these areas. In the first seven months, drought prolonged heat wave, phenomenal

rain, floods, fogs and frosts have followed one another in quick succession.

The story of the damage done by rain to vine fruits and Prunes, has already been told in these columns, but the effect of fogs on citrus is something new to this area, if not elsewhere.

Packing house managers on the Area, have noted a break down in the rind of Oranges and Lemons, which could not be accounted for by the period or manner of storage after picking. The break down is characterised by slight sinking of tissue between oil glands in the rind, thus leaving them standing out prominently. This is rapidly followed by a spot developing from green to black in color. Complete breakdown of the fruit then ensues.

At first it was thought that the heat wave had damaged the tissue of the rind, but it was found that there may be many instances of affected fruit in one load, and few in another, although picked on the same day from the same trees. On consulting authorities it was found that Fawcett in his classic "Diseases in Citrus," describes a breakdown (with exactly similar symptoms) as Oleocellosis or Rind Oil Spot, due to burning by the Orange (or Lemon) oil of the fruit itself. He notes that the burning is seldom apparent in dry warm weather, but may be acute under wet foggy conditions.

His experiments have shown that Orange oil applied to the rind of an Orange (or Lemon oil to a Lemon) for a few seconds will cause a burning and subsequent break down.

It appears that even a slight injury to the oil glands in harvesting, which causes oil to exude may have little effect in dry conditions as the oil volatilises before damage is caused to the tissue—but under wet conditions of rain or fog the oil will remain on the rind long enough to cause burning.

Very wet fogs on the areas for the past six weeks have been of almost daily occurrence and it seems clear now that fruit harvested under these

High quality Grapefruit is now being produced in Australian citrus groves.

(Illus. by courtesy Vic. "Journal of Agriculture.")



conditions is subject to burning, whilst the same fruit, if picked in sunlight, remains undamaged. The Area has seldom before experienced fogs, which have lasted far into the day, and the Rind Oil Spot had in consequence seldom, if ever, been noted until this year.

The lesson from the foregoing is that it is extremely dangerous to harvest citrus in wet foggy weather.

:: :: ::

Cultural Research.

The M.I.A. proper, consists of two irrigation areas, known respectively as Yanco and Mirrool. Practically no Wine Grapes are cultivated at Yanco, but Mirrool produces 90 per cent. of all the wine made in N.S.W..

The Wine Grapes Marketing Board consists of representatives of Mirrool Wine Grape Growers, acting with two Government nominees, and its function is to watch the interests of wine growers in all matters affecting the production and sales of their Grapes.

Some two years ago the Board endeavoured to persuade the Council of Scientific and Industrial Research to establish experimental plots near Griffith and Yenda to determine, if possible, a number of cultural problems with which growers are faced. The C. S. and I. R., however, was un-

willing to do so unless such a course of action was approved by the State Department of Agriculture.

The Department, unfortunately, considered that "no good purpose could be served" by laying down the experimental plots proposed, and that enough investigation was already in progress in various parts of the State under the observation of its own officers.

The Chairman of the Wine Board, Mr. J. C. Thorne, stated recently that although there were 4,000 acres of Wine Grapes planted at Mirrool, only one Departmental fertiliser trial was in progress in the district and this consisted of a plot of one acre of White Shiraz Grapes and another or one acre of Black Shiraz. Of these the latter was as yet inconclusive, whilst the former after eleven years merely showed that some fertiliser was better than none, and in any case White Shiraz are not, strictly speaking, a wine Grape at all.

Mr. Thorne deplors the inadequacy of the departmental experiments and adds that an industry of the magnitude of Wine Grape production on the areas is deserving of better treatment. It has often been pointed out that the total area of vines on the M.I.A., including Wine Grapes, table Grapes, dried berry fruits, exceeds

6,000 acres. Spread over a diameter of some 50 miles, yet there is only one departmental viticulturist to give advice throughout the whole area. The Federal Government, which collects handsome excise duties on the local spirit, employs no less than three excise officers to police the five wineries in the Mirrool Area, over a diameter of about 12 miles.

:: :: ::

Some few years ago an outbreak of the dreaded Oriental Peach Tip Moth, was discovered near Griffith and though little damage was done and the pest has been kept in control, the Mirrool Area has been in quarantine as far as Yanco Area is concerned ever since.

This meant that Leeton Cannery was not permitted to accept delivery of Griffith canning fruits, and in con-

sequence contracts were made by Griffith Producers and Yenda Producers Co-operative Companies with Sydney canners for all Mirrool Canning fruit to be pre-cooled at Griffith and railed to the Metropolitan factories.

The increase in production of canning fruits at both Yanco and Mirrool has now made it out of the question for Leeton Cannery to handle the whole crop even if the embargo owing to Peach Tip Moth were removed from Mirrool Area, Mirrool Area Growers will therefore consider at a meeting to be called as this goes to press, the question of an extension of the canning contract with Sydney Canners for the next ten years and the duplicating of the present cooling capacity at Griffith Producers' Cool Stores.

N.S.W. Crop Prospects

POME AND STONE FRUITS GOOD — BANANAS FAIR —
PINEAPPLES LIGHT — PASSION FRUIT POOR — CITRUS
SATISFACTORY.

THE FOLLOWING REPORT received from the N.S.W. Department of Agriculture in mid-July, was the latest information available as to the coming fruit crop prospects:—

In the Hills District (County Cumberland) excellent bud development is noticeable in Apples and heavy crops would appear to be indicated. There is very extensive spur development on all varieties of Plums. Early Peaches mostly show well for blossom buds.

In the Parramatta-Camden area, bud development of pome fruits and Cherries is satisfactory, while Apricot and Plum trees have an abundance of fruiting wood. Nectarines have a plentiful display of blossom buds. On early maturing varieties of Peaches, blossom buds are showing pink and in some orchards trees are in full bloom. Mid-season kinds have an abundance of fruiting wood.

Around Orange, medium to good budding indications are said to exist in respect of Granny Smith and Rome Beauty Apples while Jonathans and Delicious are moderate. Williams and Packham's Triumph Pears have medium to good bud prospects. Cherries, Peaches and Nectarines show satisfactory bud development.

The weather in the Goulburn District caused delay in pruning operations. This possibly is an advantage, as robust fruit buds may be produced.

Good rains were received in the Young district and the subsoil is said to have had the best soaking for many years, with the result that all fruits should benefit. Pome and stone fruit trees are budding up well and the outlook appears satisfactory.

At Yenda and Leeton, budding indications are very good for Apples, and the position of most other pome and stone fruits may be regarded as satisfactory. Growth of Apricot and Peach trees and budding indications are pleasing; pruning of Peach trees is in full swing.

Bananas.

Weather conditions retarded development of fruit on the Upper Tweed

and much of the fruit in the Brunswick district, may be blemished owing to cold weather in late May and early June.

Prospects are moderate on the Upper Richmond and some poor quality fruit may be marketed from the older plantations.

Medium consignments of fair quality fruit are expected to be sent from Ballina and also from around Macksville.

Pineapples.

A light harvest, which is meeting local requirements, is being obtained in the Broadwater and Wardell districts on the Richmond. Some very small shipments are also being made to southern markets. At Macksville, young plantations are looking well, but older patches are showing the effects of cold weather and winds.

Passion Fruit.

Generally show promise of poor to fair crops.

Citrus

The weather during June for the most part was dry and windy throughout coastal groves, and dull, cold and showery in Murrumbidgee Irrigation Area. Considerable harvesting of Navels was carried out in coastal orchards, picking being accelerated in some localities owing to a shedding of the fruit. Picking for export to New Zealand was hampered by showery weather on the Murrumbidgee Irrigation Area.

Valencias generally are coloring well, but while much of the fruit appears to have reached satisfactory size, development is lacking in some centres owing to dry weather. Clearances of common Oranges are being effected at somewhat better prices than during the previous season.

Emperor Mandarins are being marketed freely; the quality is mostly satisfactory, but in a number of areas there is a good deal of small fruit.

Although clearances of the bulk of main crop Lemons is reported from some districts, in others disposals are slow and there is some accumulation of colored fruit. Generally the Summer crop promises to be good.

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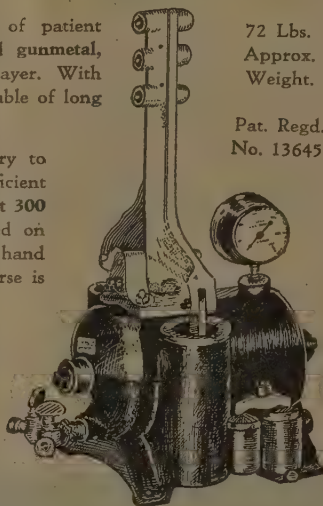
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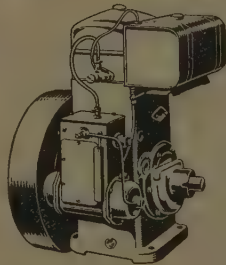
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NEW BODY FORMED.

N.S.W. Apple and Pear Growers' Association.

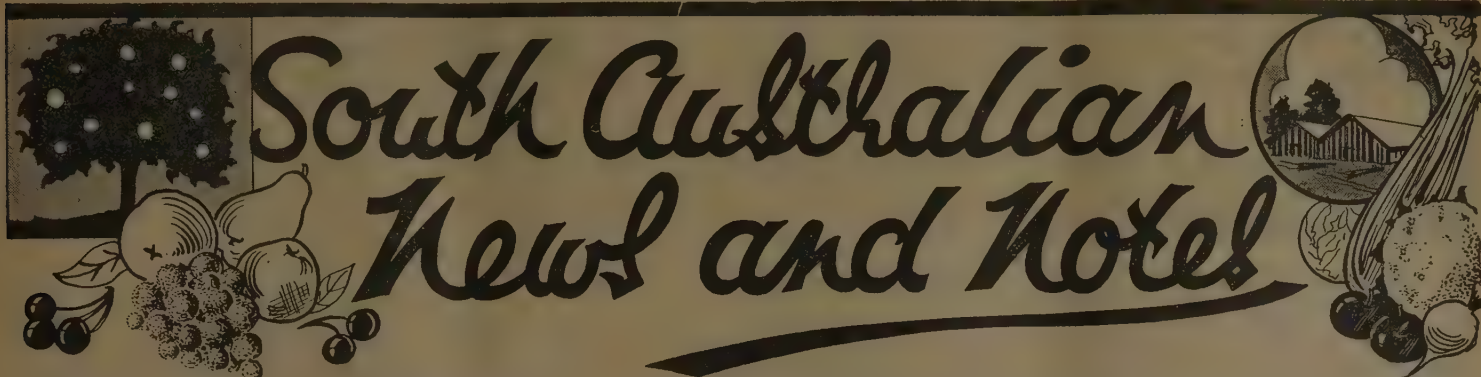
At the annual general conference of the Fruitgrowers' Federation of New South Wales, a new association: the N.S.W. Apple and Pear Growers' Association—was formed. This will replace the N.S.W. Apple and Pear Export Association.

This new body does not include shippers, and will function for a year; the matter will then be reviewed. It is intended that it shall be a body of Apple and Pear growers to express the views and ideas of the industry and to act as a channel between the

industry and the Apple and Pear Board.

THE PRIMARY PRODUCER AND WAR.

In a recent statement, the Minister for Defence (Brigadier G. A. Street) announced that the Defence and Commerce Departments had combined and made plans for reserves of food-stuffs, etc., so that in time of war the economic welfare of the Commonwealth would be guarded. This was considered just as essential as actual armaments, for past experience has shown that a blockade has greater power in demoralising a nation than anything else.



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Meeting of Executive Committee

THE Executive Committee of the above Association met in the Board Room, 288a Rundle-street, Adelaide, on July 28, 1939, at 10.30 a.m.

The President (Mr. W. J. Bishop) presided over the meeting, which was attended by:—

Messrs. N. T. Hobbs, G. Clifton, H. N. Wicks, H. W. Parsons, J. B. Randell, F. Hughes, H. B. Robson, G. Jennings, C. W. Giles, C. H. Ragless, C. J. Pitt, G. H. Schultz, W. H. Ind, S. M. James, E. L. Giles, C. Stanford. Apologies: Messrs. M. J. Vickers, M. Packer, and G. T. Pitt.

Correspondence:

1. Department of Agriculture submitted quantities of fruit held in cold store in S.A., as at June 30, 1939. Received.

2. Primary Producers' Union, Sydney, concerning National Insurance.

3. Wheat and Wool Growers' Union of W.A., concerning National Insurance.

4. Primary Producers' Association of W.A., concerning National Insurance.

5. Mr. C. W. McRostie, of Melbourne, relative to a Bill to amend the Farm Produce Agents Act now before the Victorian House of Assembly.

6. J. P. Scheitlie, Oslo, concerning Apple export. Resolved letter be handed to Apple Section.

7. The Premier of S.A., enclosing extracts from a report received from the Agent-General for S.A. Received.

Annual Meeting Arrangements: Mr. W. Ind moved "That as the last year, the annual meeting be held in the morning, Conference in the afternoon, and dinner in the evening." Seconded Mr. G. H. Schultz. Mr. G. H. Schultz moved "That ladies be invited to attend the annual dinner." Seconded Mr. H. W. Parsons. Carried.

Mr. F. Hughes moved "That Mr. H. N. Wicks be asked to supply a programme of talking pictures at the conclusion of the dinner." Seconded Mr. H. B. Robson. Carried.

Mr. N. T. Hobbs moved "That Mr. Wicks be given a free hand in programme arrangements." Seconded Mr. C. H. Ragless. Carried.

Annual Meeting: Mr. C. H. Ragless moved "That the Hon. the Minister of Agriculture be invited to open the annual meeting." Seconded Mr. F. Hughes. Carried.

Conference: Mr. W. H. Ind moved "That the Hon. the Premier be invited to open the Conference." Seconded Mr. C. W. Giles. Carried.

Conference Speaker: Mr. G. H. Schultz moved "That Dr. Callaghan, Principal of Roseworthy College, be invited to address the conference again this year." Seconded Mr. W. Ind. Carried.

Sub-Committee: Mr. H. N. Wicks

moved "That a Committee be formed to make all arrangements." Seconded Mr. G. H. Schultz. Carried.

Resolved the Sub-Committee consist of Chairman, Secretary, and Messrs. H. N. Wicks, N. T. Hobbs, and W. H. Ind.

Sectional Reports.

Potato Section: Mr. C. J. Pitt, S.A. representative on Federal Potato Advisory Committee, reported on the recent meeting of the Committee in Melbourne. The proposal to set up a Marketing Board was stoutly opposed by S.A., the scheme being considered ridiculous and unconstitutional. However, a poll of growers would be taken to decide the matter.

At a public meeting at Woodside, Potato growers voiced their opposition to the proposal. However, Potato growers in this State favor State Registrations to affect an efficient organisation of the industry. Appreciation of the Association endeavours on behalf of growers was also expressed at the meeting.

The Secretary read copies of letters to be sent to the Minister of Agriculture setting out the advantages of registration and also the growers' attitude to the Federal body's proposals.

Mr. F. Hughes moved "That this Association support Potato growers in their requests for registration." Seconded Mr. G. H. Schultz. Carried.

Mr. G. H. Schultz moved "That Mr. Wicks be authorised to report the Potato position at the Balhannah Agricultural Bureau meeting to-night with the view of convening a further meeting of Potato growers to hear Mr. Pitt's report." Seconded Mr. J. B. Randell. Carried.

Tomato Section: Mr. C. Stanford, Chairman of Tomato Section, reported that the Committee had held its first meeting for the season, and were making preliminary arrangements. Small quantities had been exported over the past few weeks.

Citrus Section: Mr. L. J. Wicks reported that a special general meeting of Torrens Valley Citrus Growers' Society would be held that evening to consider future activities of the Society.

1939 TOMATO SEASON.

With the commencement of the 1939 glass house Tomato season, the Committee of the Tomato Section have met to make preliminary arrangements for the season.

Mr. C. Stanford was again appointed Chairman and the Committee is as follows:—Messrs. R. B. Stanford, C. R. Bishop, K. L. Cooke, A. B. Fuss, W. A. Hersey, Jnr., M. Rosewarne, G. H. Sharpe, A. F. Huelin, A. Elliott, C. J. Strange, and M. Georgeff.

PROPOSAL TO SET UP A POTATO MARKETING BOARD.

The proposal of the Australian Agricultural Council to set up a Potato Marketing Board is supported by the Federal Potato Advisory Committee, and strongly opposed by Potato growers in South Australia.

A well-attended meeting of growers held at Woodside on July 13 unanimously protested against any legislation along the lines advocated.

Mr. C. J. Pitt, one of the South Australian representatives on the Federal Committee, addressed the meeting, as also did Mr. H. H. Shannon, M.P., and Mr. W. J. Bishop, President of S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

The meeting was presided over by Mr. L. B. Pfeiffer, of Woodside.

A further meeting to decide future South Australian action will be held at an early date.

SIDELINES IN AGRICULTURE.

Mr. Spafford on Value to State.

Speaking at the 21st anniversary of the formation of the Red Comb Egg Association, held in Australia Hall on Saturday night, the Director of Agriculture (Mr. W. J. Spafford) said that the future prosperity of South Australia was bound up with agricultural sidelines. He could see possibilities for great expansion in agriculture which would do far more for the prosperity of the State than secondary industries.

The small industries connected with agriculture had developed largely in recent years, Mr. Spafford said. He considered that South Australia produced the best Tomatoes in the world. That could be certainly claimed for local Oranges, and the prices received for them proved it. South Australian Celery was the best in the Commonwealth, but not up to the Californian product. Locally grown Lettuces were of excellent quality, and there were possibilities in the growing of Asparagus and Sweet Melons.

FRUIT IN COLD STORAGE.

The Department of Agriculture advise that the quantities of various fruits held in cold store in South Australia on June 30, 1939, were as follows:—

Apples	161,527 Cases
Pears	2,873 Cases
Quinces	25 Cases

Total 164,425 Cases

LARGE TURNIP.

From Port Augusta comes a claim for a record in Turnips. Mr. T. Kite, a local grower, displayed in a local greengrocer's shop a Turnip from his garden measuring 10 inches across and weighing over 17 lbs.

Can any market gardener beat this?

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ELECTION OF EXECUTIVE COMMITTEE.

Nominations Close August 31.

Nominations for the positions of President, Vice-President, and 10 Committee men of the S.A. Fruitgrowing and Market Gardeners' Association Incorp. close with the Secretary on Thursday, August 31, 1939.

The following retire by effluxion of time, but are eligible for re-election.

President: Mr. W. J. Bishop.

Immediate Past President: Mr. N. T. Hobbs.

Vice-President: Mr. H. N. Wicks.

Committee: Messrs. L. J. Wicks, W. H. Ind, J. B. Randell, C. W. Giles, F. C. Staniford, R. Hunter, J. Turner, A. O. Petersen.

Two vacancies on the Committee have been caused by the appointment of Messrs. C. H. Ragless and G. Jennings as life members.

The rules of the Association set out that each nomination form must be signed by two financial members of the Association as proposer and seconder, and assented to by the nominee signifying his candidature for the office.

Nomination forms are obtainable from the offices of the Association.

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Pink Rot in Celery

PINK ROT (Sclerotinia Sclerotiorum) caused Celery growers in South Australia some concern during the early part of the present season. Following experiments carried out at the Waite Institute the following report has been issued by the South Australian Department of Agriculture.

Pink Rot (Sclerotinia sclerotiorum) has proved to be a serious disease in some of the vegetable gardens on the Adelaide Plains during the late Autumn and early Winter months of 1939.

The disease was first observed by the writer in 1933, infecting a Celery plant grown in a garden on the eastern side of Adelaide. At the time it was thought that the numerous Bordeaux sprays applied to control Leaf Spot held the trouble in check. Since it was first observed, Pink Rot has become very slowly more widespread, but not in what could be termed an alarming degree.

In the past, exporters of Celery to the Eastern States have on a few occasions received adverse reports from consignees to the effect that some crates had opened up in a slightly decomposed state. The cause of the breakdown was not definitely diagnosed, but was in all probability due to the Pink Rot fungus. During the present season, many consignments opened up poorly, and the cause of the breakdown was definitely due to Pink Rot.

When Celery is infected in the field, the first symptom of the disease is a watery looking lesion or spot on the stalk. Later the fungus appears on the surface as a delicate, white cottony growth. As the disease develops, a pinkish color, later changing to brown appears, and eventu-

ally, the irregular shaped black resting bodies or Sclerotia are formed. These sclerotia can easily be found when probing about in decomposed leaf stalks. Cabbages may become seriously infected, and the sclerotia are to be seen very readily in large numbers all over the upper portions of the heart. They are black, irregular in shape, and comparatively flat.

When the sclerotia are ploughed under the soil, it is possible for them to remain there for several years, and when brought to the surface by subsequent cultivation will germinate and be a source of infection to susceptible crops. Under favorable conditions, the sclerotia in the soil germinate, and send up fruiting structures similar to small mushrooms, and from these, many small seed-like bodies (ascospores) are ejected, and are distributed by the wind, rain, and irrigation water.

The infection probably makes entry when the skin has been damaged by growth cracks, insects, or mechanical abrasions, such as occur during cultivation, or in the case of Celery, when boarding up for bleaching.

Control.

The risk of further soil contamination must be avoided. Discarded strippings in the field should be removed as soon as possible to some place where they will not cause re-infection, as the debris left on a slightly infected soil will very soon increase the amount of infection. Longer rotations between Celery, Cabbage and Lettuce plantings should be practiced.

Nearly all the vegetables planted as Autumn and early Winter crops are susceptible to some degree to the ravages of this fungus disease. When the soil becomes badly infected, cereal growing and pasture will probably have to be resorted to for three or four years.

The following suggestion has been received as a Garden Calendar for the coming week.

- Monday: Stop all leeks.
- Tuesday: Have Potato Eyes tested.
- Wednesday: Plant Peas in Queues.
- Thursday: Put in Boot Trees.
- Friday: Draw your Celery.
- Saturday: Take out Peaches.
- Sunday: Lettuce Pray.

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South Australian Fruit Marketing Association

MEETING OF EXECUTIVE COMMITTEE.

The monthly meeting of the Executive Committee of the South Australian Fruit Marketing Association was held at Adelaide on July 28.

There were present: Messrs. H. N. Wicks, R. Fowler, R. O. Knappstein, W. W. Miller, D. Norseworthy, R. G. Hannaford, J. B. Randell, A. O. Petersen, E. Leishman, F. B. James, M. G. Basey, S. M. James, R. A. Cramond, A. R. Willmore, L. J. Bishop, and the Secretary.

Apologies were received from Messrs. H. M. Charlick, F. F. Redden, P. R. B. Searcy, M. J. Vickers, R. H. A. Lewis.

The President, Mr. J. B. Randell, occupied the chair.

The Department of Commerce, Canberra, wrote advising that specimens of moths bred from the larvae collected in imported fruit in Colombo had been identified as a Codling Moth.

The Apple and Pear Council wrote enclosing a statement covering the history of the movement to obtain a levy for Apple publicity from its inception until its eventual conclusion, and advising copy of the statement had been sent to the Adelaide "Advertiser." The Secretary advised that part of the statement had appeared in the "Advertiser."

The Secretary also read part of letter from the President, Mr. J. B. Mills, dated November 25, which is referred to in the statement, which sets out that the Sales Tax Department had indicated their ability to handle the proposal to collect the levy by way of Sales Tax; this letter had been before members at the December meeting.

The Apple and Pear Council also wrote setting out the proposal that there should be a joint meeting of the Apple and Pear Council and the Apple and Pear Board about September to discuss matters of policy. Agreed.

The Soldier Producers' Marketing Society Ltd., New Market, Adelaide, were unanimously elected to become members.

The Secretary advised that Mr. H. M. Charlick had indicated that he did not wish to continue as a member of this Committee, and it was unanimously agreed to invite Mr. G. S. Queale to fill the vacancy.

A general discussion took place in regard to the Sales Tax and the difficulties in regard to supplying returns in South Australia. There was a large divergence of opinion among members in regard to this matter.

A discussion took place in regard to the functions of the Australian Markets Committee, it was pointed out that the underlying idea was to improve the consumption of Apples and Pears in Australia by publicity, and research work in discovering methods for utilisation of the fruit which is at present wasted owing to lack of markets, and the collection of statistics and the co-ordination of the work of the Committees in the different States was the first essential.

Mr. A. R. Willmore stated that the Government Produce Department had reports from London in reference to the type of Pear case buyers preferred, and the correspondence could be seen at the Department by those interested.

Control by Dusting and Spraying

CONTROL OF BROWN VEGETABLE WEEVIL

THE GRUBS of the brown vegetable weevil are found during the Winter and early Spring, and although most vegetables are attacked, this pest is particularly destructive to the foliage of Carrots, Beetroot, Lettuce and Radishes. The grubs, which are stout-bodied and legless, measure up to one-half inch in length, and vary in colour from light-green to yellow.

Where Turnips, Carrots, or Beetroot are attacked, the grubs may be controlled by dusting or spraying with arsenicals, states the N.S.W. Department of Agriculture:—

For dusting, mix together—
Arsenate of Lead powder .. 1 lb.
Hydrated lime or kaolin .. 4 lb.

For spraying, use:—
Arsenate of lead powder .. 2 oz.
Water .. 4 gals.

A useful spreader for the spray may be made by mixing together:—
Casein .. 1 oz.
Hydrated lime .. 4 oz.

This casein-lime mixture should be added to the spray at the rate of 1 oz. to every 4 gallons.

Where control measures have not been adopted early, it sometimes becomes necessary to replant in areas heavily infested with grubs. When this has to be done the remnants of the crop should be gathered up and

removed from the ground and, two or three days later, chopped up lettuce or Turnip leaves, or even Cape weed or marsh mallow foliage, either dusted or sprayed with arsenate of lead should be scattered over the ground late in the afternoon. Should suitable green foliage not be available, the following poisoned bran mash may be used:—

- Bran .. 24 lb.
- Molasses .. 4 lb.
- Sodium arsenite (or Paris green) .. 1 lb.
- Water .. 2½ gal.

The sodium arsenite is dissolved in the water, the molasses is then added, and the mash prepared. If Paris green is used it should be mixed dry with the bran and then the mash is made with the water in which the molasses has been dissolved.

The vegetable weevil, in addition to attacking vegetables, also breeds on various weeds. In the Spring and early Summer the grubs of this pest transform into brown weevils, which measure about half an inch in length, and these attack early Tomatoes and Potatoes, causing each year a considerable amount of damage which could be prevented if the land intended for these crops were free of weed growth during the Winter.

PEACHES IN CALIFORNIA.
Heavier Crop Than Last Year.

The U.S.A. Peach crop is forecast at 61,863,000 bushels, as compared with 51,945,000 bushels produced in 1938.

The production of Californian Clingstone Peaches in 1939 is estimated at 374,000 tons, as compared with a total crop of 313,000 tons in 1938, of which 292,000 tons were harvested. The production forecast of Freestone Peaches

this year is 211,000 tons, as compared with the 1938 crop of 179,000 tons.

In 1938, 241,800 tons of Californian Clingstone Peaches were canned, 26,000 tons were dried, 24,200 were used fresh, and 21,000 were wasted. Of the Californian Freestone Peaches, crop in 1938, 94,000 tons were canned, 100,800 dried, and 68,800 tons used fresh. 28,100 tons of Californian Apricots were canned in 1938, 117,600 dried, 5,600 shipped fresh out of the State, and 14,700 used in the State.

SOUTH AUSTRALIA—(Continued)

Mid-Murray Notes

PRUNING WELL ADVANCED — FIRST IRRIGATION DUE — SULTANA CANES HEALTHY — ABSENCE OF "DIE-BACK" — TRELLISING VINES — VALUABLE RESEARCH IN CITRICULTURE BY DR. JOAN HEARMAN — MR. R. A. BOYLE LECTURES ON NITROGEN FERTILISERS — WATER HYACINTH A CURSE — GREAT INTEREST IN PRUNING COMPETITIONS AND HIGHEST AGGREGATE WON BY MR. F. BATTAMS — VISIT BY NEW ZEALAND FARMER.

(By Our Correspondent.)

PRUNING is the order of the day at the present time and judging by the amount of work already done, it is evident that this work is well in hand and quite up-to-date. The Winter has been extremely mild and with the exception of a few frosts last month, the usual white mornings have been conspicuous by their absence, in fact I noticed a few Almond trees in blossom today without having lost their last season's green leaves, indicating the mildness of the Winter.

Although rain has fallen spasmodically during the Winter, there has been quite sufficient to keep the cover crops growing, but in many cases they are now showing signs of distress on the stiffer types of soil, it will therefore not be long before the irrigations will commence.

The first irrigation

is usually timed to start some time in August unless Winter rains render the soil sufficiently wet to ensure plenty of moisture at bud burst, which usually commences about the first or second week in September.

In the absence of seasonal frosts during June and July, there is a distinct danger of an early bud burst and the possibility of catching a late frost when the vines are in an advanced stage, however, come what may, we primary producers have to take it, and learn to grin, if it should come.

When pruning Currants

this Winter, a striking feature noticed is the comparatively poor growth the vines have made, showing evidence of the effect of last season's severe heat, and the lesson we may learn from this is to increase the nitrogen factor in our manures in the Spring.

If a vine does not grow well it cannot bear well, and if the additional nitrogen does not increase the crop for the next season, it will increase the growth so as to be in a better condition for an increased crop the following year.

Judging from the appearance of the Sultana Canes, they seem to be very good and in very few cases have I seen "die back" at the end of the canes.

The only places where this was at all evident, was in patches of strong growing vines, but even where occasional canes showed "die back," there were still plenty of good sound canes on the vine.

In view of the fact that in the Mildura area, many complaints have been made about the prevalence of "die back," the necessity of having to go out some distance along the cane to get good fruiting wood, this condition is not prevalent in the Renmark area. This may be accounted

for by the fact that Mildura having had more rain during the late Summer than we experienced, this forced the vines into a more sappy growth, thus limiting to a certain extent, the natural assimilation of carbohydrates.

Ever since the growing of Sultanas has constituted a major product, the

Trellising and Twisting.

of canes has undergone several changes.

In the early days, it was a usual practice to twist the canes on two wires, leaving the top wire for taking the Summer foliage.

Later came the idea of raising the crown of the vine and depressing all the canes to a level plane on a single wire.

The idea now coming into prominence is the adoption of a T trellis, having a short piece of wood about a foot wide attached to each trellis post, so as to space them a short distance apart.

The Sultana canes are wrapped on each wire, thus still leaving them on a level plane, but being kept apart, the fruit hangs more freely and is not so liable to become damaged in the event of Summer rains, at the same time allowing more ventilation to circulate through the vine, and also enables more sunlight to penetrate through the foliage, which becomes more evenly distributed with this form of trellis.

Dr. Joan Hearman, of the Griffith C.S. and I.R. Research station has recently spent some time in the Mildura and South Australian Citrus growing areas in the course of her studies of the decline and unthriftiness of many citrus trees throughout the irrigation areas.

This visit originated from a discussion which took place at the last meeting of the Council of the Merbein Research Station. Mr. A. E. Cameron, one of the Councillors, thought that although Dr. Hearman was attached to the Griffith Station, there were problems in the other irrigation areas which could only be approached by a direct study.

These remarks were upheld by Mr. Len Andrew of Waikerie, and the outcome resulted in a preliminary survey of the Mildura and some of the South Australian, River Murray citrus areas.

While in Renmark, Dr. Hearman has marked a few trees on the property of Mr. C. H. Katekar, which are over 40 years old, and have a record for constant bearing of good quality fruit.

Roots will be taken from some of these trees and grafted to unthrifty trees, and will constitute one of many

experiments on which Dr. Hearman is interested.

Other experiments include the study of Root Rot Fungi, Collar Rot, Inarching and Root Stock trials. The latter covering a very wide scope.

The progressive course of these experiments will be followed by all citrus growers in the Commonwealth, for it constituted the most comprehensive work ever attempted in Australia on the production of citrus fruits and a study of the general welfare of the citrus tree.

Mr. R. A. Boyle, M.Sc., has just completed a series of addresses to members of several branches of the Agricultural Bureau, along the river. Although Mr. Boyle is the representative of the Nitrogen Fertiliser Co., the value of his addresses lies in the fact that his scientific knowledge is freely given whenever it is sought. Wherever Mr. Boyle addressed a meeting, there could be always found a large and keen audience.

In his advice to growers on any phase of production, the speaker stressed the point of calculating the unit value of any artificial fertiliser, when applied to the soil, as this constituted its only true commercial value.

Growers along the River greatly appreciated Mr. Boyle honoring a promise given six months ago to give this series of lectures.

About two years ago, a resident of Ramco, being struck by the beauty of

the Water Hyacinth

planted it in his fish pond, and as it grew rapidly believed that some of the lagoons and backwaters of the River could be beautified by propagating this plant in these places. The plant was not then known in these parts, as one of the worst river pests in the world. These few plants, planted as a means of beautifying the landscape, thrived so well that in less than eighteen months, the whole lagoon became a tangled mat of green and heliotrope from the water hyacinth. The rapidity of the spread of this plant awakened residents to the dangerous possibilities of allowing further infestation to take place, as Lesky's lagoon as well as the Ramco lagoon was in a fair way to become clogged with growth, while odd plants were discovered in many unexpected places.

The Agricultural Bureau at Waikerie subsequently approached the Department of Agriculture, pointing out the seriousness of allowing this plant to spread to the River itself.

The Department took the matter up, and realising that the affected area was sufficiently limited in extent to make a complete clean up, straight away proceeded to cope with the matter.

A gang of men was sent up and hundreds of tons of leaves and stems and flowers were eventually thrown up on the banks to dry and will later on be burned. The rapidity of the growth of this plant may be gauged from the fact that a simple plant may cover an area of 700 square yards in one season.

Now that residents of the River areas have become fully aware of the dangerous possibilities surrounding

this beautiful, harmless looking flower, a sharp look-out will be kept right along the River frontages.

An annual feature in the activities of the various branches of the Agricultural Bureau is in connection with the

Pruning Competitions

Local competitions were held at Waikerie, Moorook, Mypolonga, and Berri early in July to determine the personnel for entry into the championship class. The three competitors gaining the highest marks in the local event, entitles them to enter for the big event. The championship was held this year at Moorook, and the judges were Mr. Leishman (acting Chief Horticulturist), assisted by two consultative judges, Messrs. F. Elliot, of Waikerie, Mr. L. Chapple, of Berri. Mr. Leishman has judged the Championships for the past 12 years. The vine section embraced, Sultana, Gordo and Currant, while the tree section constituted the Apricot, Peach and Pear.

The Championship event took place at Moorook this year, and was proclaimed an unqualified success. Throughout the day the proceedings were witnessed by an interested assembly of spectators, who hailed from a radius of a hundred miles. The results are as follows:—



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Vine Section:

	Currant Possible	Gordo Possible	Sultana Possible	Total
F. Battams, Mypolonga	100.	100.	110.	228
L. Boehm, Waikerie	93	87	108	281
S. Loxton, Moorook	91	89	98	278
A. E. Milde, Mypolonga	89	91	97	277
C. Curtis, Waikerie	91	82	103	276
H. Tucker, Berri	85	80	106	271
E. Prosser, Mypolonga	80	90	100	270
H. Chapple, Berri	91	82	94	267
E. Liddicoat, Moorook	84	84	98	266
G. Rowley, Mypolonga	82	79	103	264
R. Andrew, Waikerie	80	84	99	263
R. Robertson, Berri	80	81	95	260

Tree Section:

	Apricot Possible	Peach Possible	Pear Possible	Total
A. Milde, Mypolonga	100.	100.	100.	265
E. Prosser, Mypolonga	88	90	87	262
G. Rowley, Mypolonga	91	84	87	260
F. Battams, Moorook	86	83	91	259
C. Curtis, Waikerie	85	83	91	258
W. Boehm, Waikerie	87	86	85	257
J. Boehm, Waikerie	87	81	89	256
A. Schenscher, Moorook	84	88	84	255
E. Rout, Berri	89	81	85	255
R. Woolston, Berri	83	84	86	253
E. Liddicoat, Moorook	90	81	79	250
M. Todd, Berri	85	84	79	248
E. Liddicoat, Moorook	80	81	84	245

The Dried Fruits Board always awards a trophy for the competitor gaining the highest aggregate marks in both sections, and this was won by Mr. F. Battams of Moorook, who was roundly congratulated on his success. Each team entering, competes for the Gerrard Shield, which was this year won by Mypolonga with a total of 1,598, Moorook with 1,594, Waikerie with 1,591 and Berri with 1,546.

There is always a spirit of friendly rivalry between the competing teams which is only matched by that existing between individuals. These yearly competitions have undoubtedly raised the standard of pruning in the localities where they have been held, and there is no doubt about their commercial value.

A party of 26 New Zealand farmers and their wives toured South Australian Irrigation Areas during last week and visited various places of interest.

Calling at the Renmark Growers' Co-operative Packing House, they were met by Mr. H. Carne (the manager) and several members of the board of directors. Making a tour of inspection, the visitors were able to

see Navel Oranges being processed and packed ready for export to their own country and were afterwards privileged to see the same variety of fruit growing in the orchard of Mr. C. H. Katekar.

A call was made at the Renmark Growers' Distillery, where the party was welcomed by Mr. H. E. Edmonds (vice-chairman of the company). The whole process of Grape crushing, wine making, and maturing, brandy and spirit making and maturing, was explained to the visitors by members of the staff.

At the conclusion of the inspection, the wares of the institution were sampled and proclaimed good. One member of the party said to me: "In future, when I drink a glass of wine, I won't say 'That's that,' but will visualise the whole intricate process from start to finish, and will appreciate it all the more."

On being asked to express the most outstanding impression since landing in Australia, one of the party said: "The irrigation areas." "Yesterday," he continued, "we passed through miles of barren country with a ten-inch rainfall: to-day, although in the same rainfall area, we are in a veritable Garden of Eden."

Mr. Lacey, the leader of the party, in responding to a toast proposed by Mr. Edmonds, said that they would never forget, and could never forget, the hospitality extended to them since entering the irrigation areas: there they found a spirit of comradeship which could only be likened to their

own people of New Zealand. He would like to see a closer trade alliance between the two people which have proved such firm friends in social relations." The party moved off with regrets, but firmly convinced that they would come again and bring their friends next time.—"Nemo."

Nitrogen Essential for Citrus

Manuring a Seasonable Operation.

MANY CITRUS GROWERS particularly in coastal areas, frequently prefer late Winter for applying fertilisers and the opportunity should be taken, when ploughing the land, to incorporate any fertilisers it is desired to apply.

The most essential plant food for citrus trees in all localities is nitrogen, states the N.S.W. Department of Agriculture. In some soils—usually on the coast—potash is also essential. The direct value of phosphate is not at all apparent, and probably it is of greatest value when applied in early Autumn for the promotion of cover crop or weed production. However, several fertilisers in common use contain phosphates in addition to other plant requirement; hence they may be used during this and subsequent applications.

As a rule, Lemon, Grapefruit, and Orange trees, demand the greatest amounts of plant food. Lemons especially so, where grown in locations favourable to continuous cropping.

It is not important, which form of nitrogen is used, but is of considerable importance, however, that sufficient be used. If trees are now in poor condition, a quickly available form of nitrogen should be given in preference to a slowly available form.

Nitrate of soda and sulphate of ammonia are much more rapid in availability than are, say, blood and bone, bone, or castor meal. It is desirable that trees should not decline into a nitrogen starved condition.

From 1 to 2 lb. of nitrogen should be applied to mature trees—varying with their size—in addition to potash (1 to 2 cwt. per acre) in coastal soils. A similar quantity of nitrogen only is satisfactory for most soils inland.

The approximate amounts of the following materials which can be calculated, if the tag bearing the analysis is noted, will supply:—1 lb. nitrogen, sulphate of ammonia, 5 lb.; nitrate of soda, 6½ lb.; blood and bone, from 14 to 20 lb.; eastor meal, 25 lb.; bone, 28 lb.; etc.

Mandarins.

The use of so much nitrogen is not desirable with Mandarins. Excessive numbers are produced of fruits which tend to be of small size. To a degree this can be minimised by severe pruning; if Mandarins are well fed with nitrogen, pruning by thinning of limbs and fruit laterals is essential.

In some coastal localities, brown spot of Mandarins is prevalent, and pruning severely renders these trees more susceptible to infection.

To aid production of good quality Mandarins, it is advisable to apply only moderate amounts of nitrogen, approximating one-third of the quantity necessary for Oranges, and preferably in a form which is slowly available.

Where growers propose reworking trees to better varieties, or if trees are to be renovated by heavy pruning during subsequent months, the opportunity to apply ample fertilisers to ensure a successful response should not be missed.

PRICE OF POTATOES.

"Stock-food" Realises £15/5/- per ton.

Speaking at a meeting of the Sydney Wholesale Produce Merchants' Association recently, Mr. A. C. Foster, marketing officer of the Potato Marketing Board of Tasmania, said it was not fair to the public that when Potatoes were £20 a ton, many bags should be condemned for only a slight cut in the skin, which could be pared off with very little waste. Under present conditions of inspection this was the case, such Potatoes being classed as "mechanically injured."

Under present conditions these Potatoes could only be sold if branded as "stock-food." Representations were being made to the N.S.W. Department of Agriculture for these Potatoes to be admitted as a grade which would be classed as above stock-food grade.

The same day "stock-food" Potatoes realised up to £15/5/- a ton.

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Market Gardening

VEGETABLE GROWERS' ASSOCIATION ANNUAL MEETING — OFFICERS ELECTED — FOREIGNERS IN VEGETABLE GROWING INDUSTRY — GREEN MANURING — GROWING POTATOES, BEETROOT AND RHUBARB.

(By Our Correspondent.)

THE ANNUAL MEETING of the Vegetable Growers' Association took place at Moorabbin, on July 13, the Hon. Messrs. Tyner, M.L.C., G. Chandler, M.L.C., C. Gartside, M.L.C., and F. Field, M.L.A., being present. The President, Mr. H. V. Barnett extended a welcome to these members, and also to the members of the Association who were present in large numbers, representative of all the principle vegetable-growing districts.

He also congratulated growers on having so courageously come through the recent drought, which had strained growers' resources to the utmost, but he was proud to say that he did not know of one single case in which a member had been obliged to appeal for Government assistance, once again proving that the old pioneer spirit is still alive amongst growers.

The officers elected for the ensuing year are Mr. T. R. Marriott (Bentleigh), President; Mr. G. Ryan (Wheeler's Hill), and Cr. E. A. Le Page (Cheltenham), Vice-Presidents; Cr. C. C. A. George, Secretary and Treasurer; Mr. H. Beasant (Heather-ton), Mr. J. Hawkes (Mordialloc), Mr. J. Stocks (Burwood), Mr. J. Mills (Keysborough), and Mr. C. James (Cheltenham), general committee.

The secretary reported on several deputations, which had taken place during the year. These included deputations to the Melbourne and Metropolitan Board of Works, urging a reduction in the price of excess water used by vegetable growers, and the Market Committee of the Melbourne City Council and the Minister for Labor, asking that the vegetable-growing industry throughout the State, be brought under a wages board.

This request was brought about by the quantity of produce which is being produced by foreign immigrants who have gone in for vegetable growing and have no regard for hours worked, including Sunday. It is becoming more and more common to see growers ploughing, picking and sowing all day Sunday, and it is felt that this state of affairs is not right here in Australia, where we pride ourselves on our good conditions of labor.

Foreign Immigration.

Under general business, a motion was moved: "That the Minister be asked to restrict foreign immigration until such time as our own unemployed were absorbed." This motion was carried, but caused considerable discussion.

Mr. Gartside, M.L.C., stated that he thought the time had come when we had to allow immigrants into our country, otherwise some nation or other would force the issue on us. He was, however, strongly in favor of demanding that all those who were allowed into the country be compelled to respect the working conditions and customs of our Commonwealth, and that no section should be allowed to set up their own schools, print their own papers, and make no endeavor to speak the language of our land, or respect the business ethics which are customary here.

Is green manuring a successful method to be followed in the production of vegetables? As far as the value of the green manure is concerned it is quite good, but it will very largely depend on the area that a grower works, and, also the value of his land, as to whether he can afford to let land lay idle long enough to grow a crop of Peas, Barley or Lentils, or some other green crop, and then plough it in, and then leave it long enough for this green matter to decay.

The average grower of vegetables who is working under irrigation, works from fifteen to twenty-five acres, and the value of his land ranges from £60 to £100 per acre.

This forces him into intensive culture, and, mostly prevents him from allowing land to lay idle. In fact, two crops per year are usually looked for from most of the land. Of course, the man with the larger area and cheaper land finds green manuring a very convenient method.

Where the intensive culture is followed, a dressing of malt combings or kiln dust at the rate of three tons to

Showing the arrangement of glasshouses for Tomato culture in Victoria.

(Illus. courtesy Victorian "Journal of Agriculture.")

the acre, has a very good effect on the land.

Some years ago, during the mice plague, and when weevils were so bad in the wheat, remarkable results were obtained from the dust, which was obtained when the wheat was cleaned.

When green manuring is followed, it is a good practice to apply a dressing of sulphate of ammonia, at the rate of two to three cwt. to the acre when the crop is being planted.

Weather Conditions.

The frosts which were experienced during July were fatal to the very early Potatoes, and several acres have been cut back and are not at all likely to make a crop, but August is still a very good month in which to plant.

When cutting the sets, care should always be taken to keep the eye as near the centre of the set as possible, this all helps to ensure a strong shoot. When cutting, always start at the tail and where there are least eyes, and work up the Potato, this method always ensures a good eye for the last sets, also a strong one, for the top eyes always shoot strongest.

When planting by hand, a small bag tied round the waist and hanging

Tomato Culture

Following the article in our last issue, Mr. B. P. Krone, of the Victorian Dept. of Agriculture, quotes experiences as follow:—

Tomato varieties for canning purposes include Red Marhio, Eccles' Surprise (lacking in color), Low Branch, Scarlet Dawn, Bone's John Baer, and Crimson Bell. These are of a medium cropping habit, the fruit being either a smooth round flat shape, or a smooth globe shape.

Small Cluster Type.

Recommended varieties for dessert are Walker's Recruit, Portland's Sensation, Potentate, Kondine Red, Heterosis, Market King, San Marzano. This class of Tomato is an exceedingly heavy cropper, and will produce fruit like marbles if not heavily pruned and manured; shorten the clusters and stake a single leader. San Marzano, however, should not be pruned and the whole bush should be tied up on stakes.

Dessert or Cluster Types.

Tested varieties in 1937-38 included Principe Borghen (sauce variety, not as good as San Marzano), San Marzano (best known sauce variety), Kondine Red (excellent table variety), Market King (smooth, round table variety), Maori Chief, Sutton's Best of All, Recruit (Bide's), Radio, Heterosis, Potentate, Currie, Excelsior, Early Sunrise (table varieties). These should be treated as the above.

Canning Varieties from U.S.A.

The following varieties are of ex-



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cellent red color, not watery, non-acid, and excellent for canning and transport purposes. However, they are not recommended for main crop planting, and are not superior to Red Marhio, Low Branch and Eccles' Surprise. They are Early Shipper (medium cropper), Early Baltimore (subject to "catface"), Scarlet Dawn (fair cropper, best of lot), Illinois Baltimore (medium cropper), Prairiana (shy cropper, produced to suit clay soils of the prairies), Norton's Wilt Resistant (variable in habit, subject to blossom end rot, "catface," etc., shy cropper), Illinois' Pride (subject to "catface," better as a late variety in clay soils), Pritchard (fair cropper, inclined to run small unless on rich heavy soil: fruit is not a good color), Midseason Shipper (fair cropper as a late variety), Canner 114 (only a medium cropper, but flesh is of outstanding quality for canning purposes).



at the side or in front of the body, is a great assistance for quick planting, as both hands can be used to plant.

Potatoes, after being cut for planting, should always be left for twelve hours after cutting before being planted. This allows the cut to form a crust and makes it less likely that the set will rot.

Beetroot can now be very successfully sown, and seed sown during August should be ready for market before the end of the year.

This crop thrives well in land which may be slightly salty. Sow in rows ten inches apart, and when thinning out leave from three to four inches from plant to plant.

Crimson Globe is a very good variety, which matures quickly, and has a good dark color.

Rhubarb should also be transplanted this month. One eye is sufficient for each new plant, but should have a good lump of the old root on it. A lump of old root the size of a good Grapefruit is a handy size.

This should be planted six inches deep, but the eye should not be covered with soil. Press the soil firmly round the plant and do not cultivate too deeply for eight weeks after planting.

A good system to follow when

planting a patch of Rhubarb is to have the rows six feet apart and the plants five feet apart. This allows the crop to be worked both ways with the horse implements.

A row of Rhubarb planted through land which is inclined to lift and blow in the windy weather, will often make an effective break to stop erosion.

All green crops need a dressing of ammonia during this month, especially if it is at all wet. It will be found a great help in keeping the crop growing, after the quantity of rain which has fallen.

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Export & Commercial News

Exportation of Apples and Pears

Special Requirements for 1940 Season

The Department of Commerce has drawn attention to the fact that during the 1939 Apple and Pear export season, many consignments of Apples and Pears were packed in "Standard" boxes which did not comply with the specifications prescribed in the Exports (Fresh Fruits) Regulations.

Exporters and others interested in the supply to fruitgrowers of case material are advised that during the 1940 season "Standard" boxes for the export of Apples and Pears must conform to the following specifications:—

"Standard Apple Box."

(a) Each end shall be 11½ inches deep by 10½ inches wide by not less

than ½ inch nor more than ¾ inch thick.

(b) Each side shall be 10½ inches wide by not less than 19½ inches nor more than 19½ inches long. If made of softwood, it shall be of one piece or two pieces 5/16 inch thick. If made of hardwood, it shall be of one piece ½ inch thick or of two pieces 5/16 inch thick.

(c) The bottom shall be not less than 19½ inches nor more than 19½ inches long. If made of softwood, it shall be of two pieces each 5½ inches wide by 3/16 inch thick. If made of hardwood, it shall be of one, two or three pieces aggregating 11 inches wide by 3/16 inch thick. If a uni-

tized bottom is used, it shall be of two, three or four pieces aggregating 11 inches wide by not less than ½ inch nor more than 3/16 inch thick.

(d) The top shall be not less than ½ inch nor more than ¾ inch longer than the bottom. If made of softwood, it shall be of two pieces each 5½ inches wide by 3/16 inch thick. If made of hardwood, it shall be of one, two or three pieces aggregating 11 inches wide by 3/16 inch thick. If a unitized top is used, it shall be of two, three or four pieces aggregating 11 inches wide by not less than ½ inch nor more than 3/16 inch thick.

(e) A cleat shall be used at each end of the top and bottom and shall be not less than 11 inches nor more than 11½ inches long by not less than ½ inch wide by not less than 5/16 inch thick.

"Standard Pear Box."

(a) Each end shall be 11½ inches wide by 8½ inches deep by not less than ½ inch nor more than ¾ inch thick.

(b) Each side shall measure 8½ inches wide by not less than 19½ inches nor more than 19½ inches long. If made of softwood, it shall be of one piece only, 5/16 inch thick. If made of hardwood, it shall be of one piece ½ inch thick or of two pieces 5/16 inch thick.

(c) The bottom shall be not less than 19½ inches nor more than 19½ inches long. If made of softwood, it shall be of two pieces each 5½ inches wide by not less than 3/16 inch nor more than ½ inch thick. If made of hardwood, the bottom shall be of one, two or three pieces aggregating 11 inches wide by 3/16 inch thick. If a unitized bottom is used it shall be of two, three or four pieces aggregating 11 inches wide by not less than ½ inch nor more than 3/16 inch thick.

(d) The top shall be not less than ½ inch nor more than ¾ inch longer than the bottom. If made of softwood it shall be of two pieces each 5½ inches wide by 3/16 inch thick. If made of hardwood, it shall be of one, two or three pieces aggregating 11 inches wide by 3/16 inch thick. If a unitized top is used, it shall be of two, three or four pieces aggregating 11 inches wide by not less than ½ inch thick nor more than 3/16 inch thick.

(e) A cleat shall be used at each end of the top and bottom and shall be not less than 11 inches nor more than 11½ inches long by not less than ½ inch wide by not less than 5/16 inch thick.

Special attention is invited to the requirement that the tops of the "Standard Apple Boxes" are required to be not less than ½ inch nor more than ¾ inch longer than the bottoms, and in regard to "Standard Pear Boxes" not less than ½ inch nor more than ¾ inch longer than the bottoms. This is to provide allowance for bulge packing. Special attention is also drawn to the thicknesses of the top and bottom timber. These are:—

Standard Apple—Bottoms, 3/16 in. (or ½ in. to 3/16 in. if unitized). Tops: 3/16 in. (or ½ in. to 3/16 in. if unitized).

Standard Pear—Bottoms: 3/16 in. (or ½ in. to 3/16 in. if unitized). Tops: 3/16 in. (or ½ in. to 3/16 in. if unitized).

Standard Apple boxes must contain not less than 42 lb. weight of fruit, except in the case of large-sized Apples and Apples of light varieties. Standard Pear boxes must contain not less than 40 lb. weight of fruit.

Inspection Fees.

The Exports (Fresh Fruits) Regulations provide that fresh fruit shall

not be loaded into any vessel except in the presence of an officer. Should exporters or others desire the attendance of officers after official hours to inspect the fruit or supervise the loading, the person making the request for attendance of the officer will be required to pay a fee of four shillings and sixpence per hour or portion thereof.

VICTORIAN FRUIT IN ENGLAND.

Cargoes Generally Sound.

Report by Agent-Generals Office.

A REPORT to hand from the Commercial Officer (Mr. S. R. McColl), of the Victorian Agent-Generals Office, London, relative to the out-turn of Victorian fruit shipped overseas on the "Strathallan," indicates that Pears, mainly B. Bosc, with Packhams, Howells, Comice and Keiffers arrived in a satisfactory condition. Apples were variable, although generally well graded, clean good quality fruit.

Pears on the "Orion" showed Packhams good quality and packing; Josephine, green hard condition; Beurre Bosc and Winter Cole, good hard condition. Jonathans proved to be chiefly fresh and sound, Granny Smiths' showed immaturity; King David, Statesman, Rome Beauty, Democrat and Delicious good condition, quality and pack.

Packhams, Beurre Bosc, Keiffers and Josephine on the "Coptic," showed good hard condition, as did Pears on the "City of Dieppe."

A few brands of Pears on the "New Zealand Star," arrived in a forward to ripe condition, but the general out-turn was satisfactory.

The bulk of the Pears on the "Mooltan," opened up in a good hard, sound condition, some brands of Josephine being forward to ripe, while one line each of Comice and Winter Cole included frozen fruit.

The general condition of Pears on the "Orama," was good. Jonathans showed a wide variation in condition, Bitter Pit was prominent in several lines of Granny Smith and was also noticed in Rokewood and S.T.P.

The general condition of Pears on the "Moreton Bay," was forward to full ripe.

Prices for Fruit ex-Moreton Bay.

The following are the prices realised for Pears sold in London (ex-Moreton Bay):—

(According to size and condition.) Packhams, 11/-, 15/-; Jos., 10/-, 14/-; Beurre Bosc, 8/-, 12/-; Keiffers, 8/6, 11/-.

Prices realised for Pears sold in Southampton on 18/5/39:—

Josephine, 11/-; Beurre Bosc, 8/9, 10/6, Packhams, 9/-, 13/3, Keiffers, 8/9, 11/-.

The following prices were realised for Apples sold in London:—Jon., 9/-, 10/6; Granny S., 11/-, 13/6; Statesman, 9/3, 9/6, Rokewood, 9/6, 10/-; Rome B., 9/-, 10/3; King David, 9/-, 10/-; Dunns, 9/6, 10/-; Yates, 9/6, 9/9; Cleos., 10/3, 10/9; Delicious, 9/3, 9/6.

Prices realised for Apples sold at Southampton on 18/5/39:—Jonathans, 10/-, 10/6.

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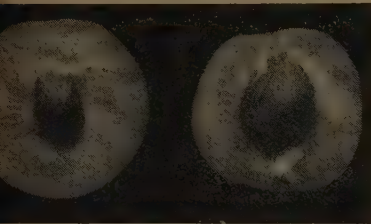
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MELBOURNE.

Export of Plums

Technical Success of Experimental Shipment

"THE GREATEST FORWARD MOVE IN THE EXPORT OF PLUMS SINCE I HAVE BEEN CONNECTED WITH THE INDUSTRY," SAYS DR. HARRISON.

THAT THE EXPORT of Plums in the experimental chamber of the "Brisbane Star" early this year, was a noted success is the opinion of capable observers in London. The experiment was based on land store tests in storing the plums at 32 deg. F. for one month and then raising the temperature to 45 deg. F. On arrival at London, the appearance of the Plums in ordinary ship's storage (32 deg. F. throughout the voyage) were more in keeping with the salesmen's ideas of values than the fruit in the experimental chamber, and the former thus realised 2/6 per 1/2 case above the latter. However, later it was discovered that the Plums carried at 32 deg. F. were not as satisfactory as those carried first at 32 deg. F. and then raised to 45 deg. F.



Cole's Golden Gage Plum.

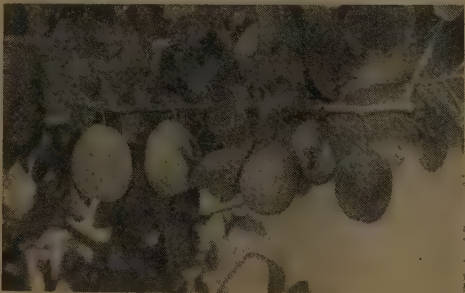
Mr. S. R. McColl, commercial officer attached to the Victorian Agent-General's Office, writes favorably regarding the fruit carried in the experimental chamber, particularly President, Narrabeen, Premier and Grand Duke.

Dr. T. H. Harrison, Commonwealth Fruit Research Officer, London, writes:—

"It is clear from the details that the Plums carried in the experimental chambers were in general very much superior in real Plum condition to those carried under ordinary refrigeration."

The Grand Duke variety which gave satisfactory results under 32 deg. to 45 deg. F. temperature conditions.

(Illustrations courtesy Victorian "Journal of Agriculture.")



ation. It is true that some of the fruit was too forward to suit the market requirements, and equally true that the Plums which were still in good condition, being sound, firm, and capable of lasting in marketable condition for upwards of a fortnight, were not well received by the salesmen. The fruit ex ordinary refrigeration was in general less mature in appearance, and fitted in with the salesmen's conceptions of what the condition should be on discharge.

"Despite the fact that commercially the transport of Plums under ordinary refrigeration conditions is considered a success, it is such a technical failure that serious consideration should be given to the prohibition of all export, under the old methods of refrigeration, of Plum varieties known to be incapable of standing the period normally necessary for transport from Australia.

"Inasmuch as the South African Deciduous Fruit Exchange has already commenced to educate salesmen and buyers to a realisation of the fact that fruit carried at the

higher temperatures and apparently arriving in a forward condition is an infinitely superior product, with a real Plum appeal to the public, it would not take Australia long to educate salesmen and buyers along similar lines."

Through the courtesy of the Southern Victoria Pear Packing Co. Ltd., which company shipped a large proportion of the experimental Plums, the remarks of their own London representative, Mr. F. J. Garford, are made available. Mr. Garford states: "The experimental fruit was all in a more or less ripe condition, but the Plums had ripened normally and were full of juice, a good flavor, and when cut showed the natural color. Those carried under the usual conditions were without flavor and when cut were mealy and discolored. When ripening they quickly turn wasty and bladdery.

"Taking this shipment as a whole, I consider that a very useful purpose has been served, inasmuch as we have received Victorian Plums which have retained most of their natural flavor. This has never been achieved before and it leads me to hope that consignments will eventually be landed which are not quite so forward in condition, but in which the fruit will have still retained its natural qualities.

"To me the most remarkable feature of the Plums which were the subject of this experiment was the fact that they did not become any riper a fortnight after discharge, when kept in a temperature of 45 degrees. I had the opportunity of inspecting Plums from this shipment in the Covent Garden Laboratory a fortnight from the date of arrival, and I must admit that I was astonished at the condition of the fruit from the experimental chamber as compared with the other. I will give a few comparisons of what I saw:—

Narrabeen (a Japanese variety from Shepparton).

From experiment and held at 65 degrees for a fortnight after discharge. Dead ripe, but full of juice and flavor. From experiment and held at 45 degrees for a fortnight after discharge. Nicely ripe and a perfect flavor.

From ordinary conditions and held at 45 degrees for a fortnight after discharge. Wasty, mealy, and flavorless.

Grand Dukes.

From experimental chamber and held at 65 degrees for a fortnight after discharge. Dead ripe, juicy, and perfect natural flavor.

From usual conditions and held at 65 degrees for a fortnight after discharge. Had been thrown away.

From experimental chamber and held at 45 degrees for a fortnight after discharge. Nicely ripe, very juicy and full flavor.

From usual conditions and held at 45 degrees for a fortnight after discharge. Wasty, mealy and flavorless. Cut brown inside.

Presidents.

The same remarks apply to Presidents as to Grand Duke, and an exactly similar comparison between the two methods can be made.

:: :: ::

"Taken as a commercial proposition," continued Dr. Harrison, "the experiment has not been a success as realised

prices will average at least 2/6 per half case below those carried under the usual conditions, but at the same time, I consider that it has been a technical success and the information gained will no doubt be put to good purpose in the future. Personally, I consider it the greatest forward move in the export of Plums since I have been connected with the industry."

Apple and Pear Export

JANUARY TO JUNE.

THE EXPORT of Apples and Pears from Australia for the six months, January to June, 1939, together with comparative figures for 1938, are supplied by the Dept. of Commerce in the following tables:—

Apple Exports—January to June.						
State.	United Kingdom.	Continent.	Elsewhere.	Total, 1939.	Total, 1938.	
	Cases.	Cases.	Cases.	Cases.	Cases.	
New South Wales	10,081	179	11,294	21,554	81,883	
Victoria	235,967	1,095	14,399	251,461	592,419	
Queensland	17,026	—	9,883	26,909	34,998	
South Australia	224,127	53,720	6,862	284,709	620,718	
West Australia	897,253	290,406	99,364	1,287,023	535,676	
Tasmania	2,369,949	436,243	34,348	2,840,540	2,866,243	
Total, 1939	3,754,403	781,643	176,150	4,712,196	—	
Total, 1938	3,969,299	592,711	169,927	—	4,731,937	

Pear Exports—January to June.						
State.	United Kingdom.	Continent.	Elsewhere.	Total, 1939.	Total, 1938.	
	Cases.	Cases.	Cases.	Cases.	Cases.	
New South Wales	9,514	—	7,426	16,940	27,433	
Victoria	293,096	8,099	8,516	309,711	363,249	
Queensland	—	—	515	515	144	
South Australia	19,141	—	1,351	20,492	46,064	
West Australia	49,453	15,951	1,652	67,056	27,417	
Tasmania	267,937	—	290	268,227	129,003	
Total, 1939	639,141	24,050	19,750	682,941	—	
Total, 1938	555,654	17,162	20,494	—	593,310	

The total quantity of Apples exported to June of this year was 19,741 cases less than the quantity exported during the first six months of 1938. Shipments to the United Kingdom were lower by 214,896 cases, but an additional 188,932 cases were shipped to Continental ports. The figures for other destinations also show an increase of 6,223 cases.

The adverse weather conditions experienced this season in the mainland States, except Western Australia, are reflected in the marked reductions in the volume of their exports. In the case of Western Australia, however, a most favorable season enabled that State to supply the shortages experienced elsewhere, with the resultant expansion in its exports to more than twice the quantity shipped in 1938.

The total quantities of Apples exported by all States to all destinations in each month of the present season, together with comparative figures for 1938, are given hereunder:—

Month.	Total Quantity.	
	1939.	1938.
	Cases.	Cases.
January	254	1,054
February	161,489	246,100
March	1,591,032	1,778,890
April	1,619,264	1,630,333
May	1,143,744	668,412
June	196,413	407,148
	4,712,196	4,731,937

The total quantity of Pears exported to June of this year was 89,631 cases more than the quantity exported during the first six months of 1938.

Increased shipments amounting to 83,487 and 6,888 cases, respectively, were made to the United Kingdom and Continental ports. A slight reduction of 744 cases was recorded in shipments of Pears to other destinations.

The total quantities of Pears exported by all States to all destinations

in each month of the present season, together with comparative figures for 1938, are given hereunder:—

Month.	Total Quantity.	
	1939.	1938.
	Cases.	Cases.
January	791	383
February	49,787	46,758
March	287,723	253,245
April	252,018	224,176
May	79,664	54,619
June	12,958	14,129
	682,941	593,310

AUSTRALIAN DRIED FRUITS.

The Commonwealth Dried Fruits Export Control Board is advised that sales of Australian Dried Fruits in Great Britain recorded with the London Agency of the Board for the week ended July 20, covered 1,567 tons. The principal items were as follows:—

New season's Sultanias, 245 tons at £39/18/9; 1,199 tons of Currants at an average of £28/9/7, and 84 tons of Lexias at £50/1/5 per ton. The following shipments have been made to date—to Canada, 12,225 tons and to New Zealand, 3,250 tons. It is anticipated that a further 3,500 tons will be shipped to Canada within the next few weeks. The total shipments to date to Great Britain are 28,456 tons and the aggregate shipments to all markets, 44,255 tons.

S. AFRICAN DRIED FRUITS.

The dried fruit exports from the Union of South Africa during March, 1939, were 1,363,451 lbs., compared with 862,984 lbs. for the previous month and 2,177,588 lbs. for the corresponding month of 1938. Raisin and Sultana crops are larger than was anticipated earlier in the season, and farmers have not yet realised all holdings.

AUSTRALIAN MARKETS
COMMITTEE.

South Australian Section.

The third monthly meeting of the above Committee was held at Adelaide on July 14, 1939. Those present were Messrs. L. J. Bishop, F. B. James, S. M. James, F. F. Redden,

J. B. Randell, M. J. Vickers, and the Secretary, E. Whitfield Mills.

Mr. J. B. Randell occupied the chair.

Correspondence was received from the State Fruit Board, Tasmania; the Orchardists and Fruit Cool Stores' Association, Victoria; Apple Sales Board, Perth, giving information in regard to stocks held in these States and prices.

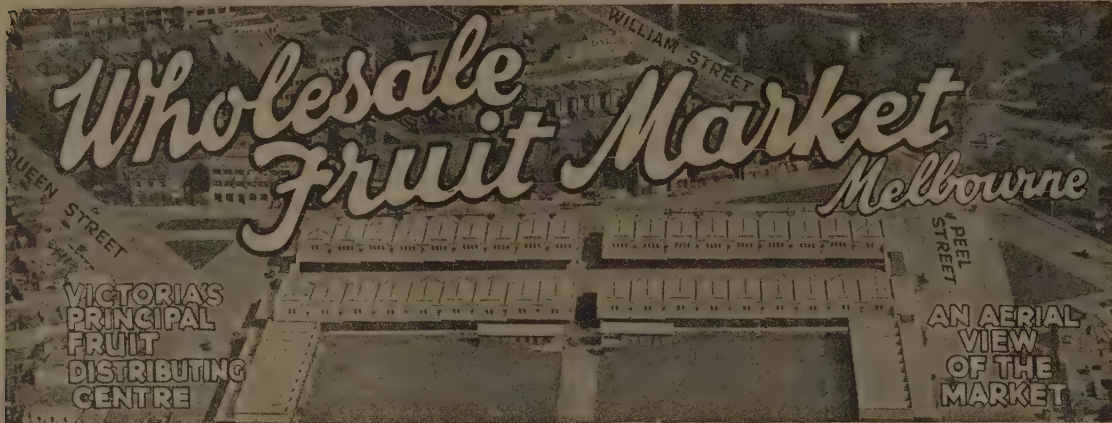
The Secretary reported that information in regard to stocks held in South Australia had been forwarded to the Associations in all the other States.

Mr. P. R. B. Searcy, the South Australian Shipper's representative on the Apple and Pear Board attended the meeting and brought under the notice of members the regulations issued in connection with the

Apple and Pear Assessment Act and the form of return that would be required from those liable for the tax.

As Mr. M. J. Vickers, the growers' representative on the Apple and Pear Board, was present, the opportunity was taken of an informal discussion on various phases of the Apple and Pear Publicity and Research Act, with a view to assisting the South Australian representatives when discussing this matter at the next meeting of the Apple and Pear Board.

The next meeting of the South Australian Committee will be held on Friday, August 11, 1939.



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STRAWBERRY PRICES IN
SYDNEY.

PLAN TO STABILISE PRICES.

An effort is now being made in Sydney to fix minimum prices for Strawberries, as quantities of this fruit have hitherto been frequently sold at a loss. In making this statement, Mr. L. T. Pearce, market representative of the Fruitgrowers' Federation, states the costs to the public will not be increased.

Mr. Pearce went on to state that extremely low prices have meant an inordinate profit for the vendor, while on other occasions jam manufacturers have purchased unsold remnants only at a very low price.

Now leading Strawberry agents have collaborated with the jam manufacturers with regard to a minimum price that should be much more satisfactory than the old haphazard method of selling. This will stabilise values for fruit supplied to retail shops and remove those gluts of the product that were chiefly beneficial to itinerant hawkers who on many occasions procured the fruit when it was stale as a result of continued failure to clear at a satisfactory competitive figure.

A GOOD OPPORTUNITY.

N. Tasmanian Orchard Property
Under Offer.

Particulars are given in an advertisement in this issue regarding an orchard property in Northern Tasmania, where the owner is willing to consider a working partnership or share system for the 1940 crop. An option of purchase can also be obtained. There are 20 acres of orchard on a 200 acre property. New overhead spray system is installed, and a well equipped packing shed is erected. Further particulars may be obtained from "North Tas.," c/o "The Fruit World," Box 1944, G.P.O., Melbourne.

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Apples and Pears Exported

REGARDING TASMANIAN FRUIT WHICH WAS REJECTED FROM BEING EXPORTED, THE COMMERCE DEPARTMENT FURNISHES HEREWITH THE REASONS FOR SUCH REJECTION.

HELPFUL ADVICE FOR GROWERS.

THE Collector of Customs, Hobart, has made available notes by the Department of Commerce, dealing with reasons for rejection of Tasmanian Apples and Pears submitted for export to U.K. — February to June, 1939. The object is to help growers and those packing fruit for export to avoid such rejections in future. (The report was prepared by Mr. W. M. Carne.)

1. Box Defects.

(a) **Splitting of Hardwood Box Ends:** The main cause of the above was insufficiently seasoned and defective timber. When used in boxes with a full pack of fruit, and boxes stacked in sheds or on wharves, many developed split head and even opened up. Unless sound seasoned wood is used it may be necessary to enforce wiring of hardwood boxes as for standard softwood boxes.

(b) **Overthick Tops and Bottoms—** frequent in hardwood boxes. To permit crown pack in standard boxes, lids and bottoms must be pliable to allow for bending. This is why a maximum thickness of 3/16 inch in lids and bottoms of standard Apple boxes and lids of standard Pear boxes is required.

(c) **Length of Tops:** Regulations require that lids of standard boxes shall exceed length of bottoms by 1/2 to 3/4 in. in Apple boxes and 1/2 to 3/4 in. in Pear boxes. Because Pears should be packed with a higher bulge than Apples they require a longer lid. Lids must be nailed at ends and not allowed to project beyond box heads. This was not enforced in 1939, but growers are advised to have this correct—inspectors will pay attention to this in 1940.

(d) **Miscellaneous Defects:** These included dirty stained, or roughly sawn boxes; weakness of boxes due to broken timber; warped timber and insufficient nailing (in hardwood boxes); softwood boxes not wired; boxes wrongly constructed or wrongly packed, the sides being treated as tops, cleats on standard boxes omitted. Growers should make themselves familiar with the requirements of the regulations. 1 1/2 inch nails should be used for nailing down hardwood standard boxes in preference to 1 1/4 inch.

2. Trade Description.

The principal defects were:—

(a) Failure to have all the description on one end of the box.

(b) Failure to include the place of origin which should be given as "Tasmania," "Australia."

(c) Failure to use either the full variety name of fruit or abbreviation given in regulations. Growers should not adopt their own names and abbreviations.

3. Slack Pack.

This is a frequent defect and contraventions were numerous. Advices from England indicate that heavier rejections were justified.

The use of the packing charts and the advisory services of the Department of Agriculture is advised. Growers should not consider that regulation weights are the equivalent of tight pack. Many Apple varieties should pack well above 42 lbs. and all Pear varieties should pack above 40 lbs.

4. Irregular or Incorrect Sizing.

This is due mainly to inefficient or insufficiently adjusted sizing machinery. Many contraventions occurred which could not be so leniently regarded. Size is an important matter in marketing fruit. It is unfair to brand smaller or larger fruit with the sizes in demand, to brand sizes not permitted export with permitted

sizes, or to include in the desirable sizes others less desirable and even not permitted. The most common defect was the inclusion of smaller fruit with the smallest size permitted and larger fruit with the largest size permitted export.

5. Defects of Quality.

Less than usual. Growers should realise that the standard of what is considered fair average quality is set by the State as a whole, and increasingly by the demands of overseas buyers.

The defects found have been due mainly to a relatively low run of a variety causing packers concerned to set themselves a low standard of quality, to a natural objection to reject fruit heavily, and mistakes inherent in high speed were often done under conditions of insufficient light. The packing of fruit with excessive russet, hail marks, frost injury, skin blemishes, grader marks, late scald, and insufficiently colored fruit, are some of the defects.

These defects could be reduced somewhat by the avoidance of premature picking (lack of color) and late picking (late scald in Sturmers).

More attention to handling and to the cleanliness and adjustment of graders would reduce much scratching and bruising.

6. Defects of Condition.

(a) **Fruit Over-ripe:** Such fruits often showed cheek and stem rots or breakdown. In most cases deterioration developed, whilst the fruit awaited shipment. This deterioration was often in no way due to any action of growers.

(b) **Late Scald:** May occur when Sturmers are left too late on the trees with the object of developing better size. The skin develops a dirty brown staining and may show brown sunken spots.

(c) **Bitter Pit:** Rejections were not unusual. Reports from overseas indicate that 1939 was a season of high pit liability, to be expected following the unusual Summer drought. It occurred seriously in Ribston and early shipments of Cox and Cleopatra.

Pit would be reduced if growers refused to pack for export fruit from trees carrying light crops. A light crop means that average size of fruit is larger than normal at any given date.

To some extent pit liability in light crop Cleopatra can be reduced by delayed picking as the liable fruits often pit on the tree and can be discarded. Delayed picking cannot be practised with light crop Cox and Ribston, as it results in the increase

of the more important defect, water core.

Though inspectors may suspect large early fruits of susceptible varieties they can only effectively reject fruit for pit when it is actually found. Consequently far more pit affected fruit arrives overseas than is rejected by export inspectors.

Pit prevention is therefore largely in the hands of the growers. Pit occurred severely in 2 1/2 to 2 3/4 inch Cox, 2 1/2 inch Ribston, 3 inch Reinette du Canada and 2 1/2 inch Cleopatra shipped in February of this year, also in other varieties abnormally large in February, such as 3 1/2 inch Alfriston.

(d) **Water Core (2 forms).** (1) Early water core as in French Crab, Rokewood, Alfriston, and more seriously (2) the late type in Ribston and C.O.P. Both occur principally in light crop fruit. The former may be reduced by delayed picking or by holding after picking, without serious loss of keeping quality. The latter renders the fruit unfit for export or storage.

In spite of rejections, advices from overseas report serious breakdown in Cox and Ribston shipped in February. The fact that many of the Coxes were 2 1/2 inch and over and the Ribstons 2 1/2 inch by mid-February shows that such fruit came from light crops. Even Alfriston 3 1/2 inch in mid-February had severe water core.

Cox, Ribston, Jonathan, King David and Delicious cannot be successfully shipped overseas if once affected with



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Shipping Numbers on Application.

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Tasmanian Fruit Board.

Tamar Coy., Tatana, Launceston.

Goulburn Valley Fruit Growers' Association.

Western Australian Tomato Growers' Association.

Southern Queensland Tomato Growers' Association.

North Coast Tomato Growers' Association.

References:

Bank of New South Wales, Haymarket, Sydney.

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Stenalls, Advice Notes, etc., on Application.

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Forwarding Numbers:

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Queensland, Northern Rivers, No. 18.

water core. In the case of French Crab, Stone Pippin and Rokewood, if not too seriously affected, they should be held on the trees or after picking until the water core has left the fruit.

The susceptibility of Ribston to water core and pit explains its great unreliability for export. Growers would be advised to rework this variety.

(e) **Black Spot or Scab:** Rejections not heavy. Black spot can and does develop in cool storage. Whether the infections are living or dead is of more importance than the size and number of the spots.

(f) **Broken Skins and Severe Bruising:** As usual, rejections were made for mechanical injuries such as fruits cut by box edges, hard rubbing against rough box timber, nail punctures, insect injuries, and very severe bruises. In most cases carelessness under pressure of work was the cause. Where only an odd such fruit was noticed it was removed and the fruit passed. Such injured fruit is very liable to fungal rots and becomes a source of infection to other fruits.

General.

Taken as a whole the quality of the 1939 export was a good average, but not equal to the high standard of 1938. The abnormal Summer climate was the cause of falling off of quality and high pit liability.

The pack was definitely superior to any previous year. This was also true for the boxes for the greater part, though there was a marked falling off in the box timber towards the end of the season.

Growers are strongly advised to make themselves familiar with the export regulations and so save themselves the loss and disappointment caused by the rejection. Advice in relation to the regulations can be obtained from the State Supervising officer at Hobart, from inspectors in charge at other ports and from the horticultural officers of the Department of Agriculture.

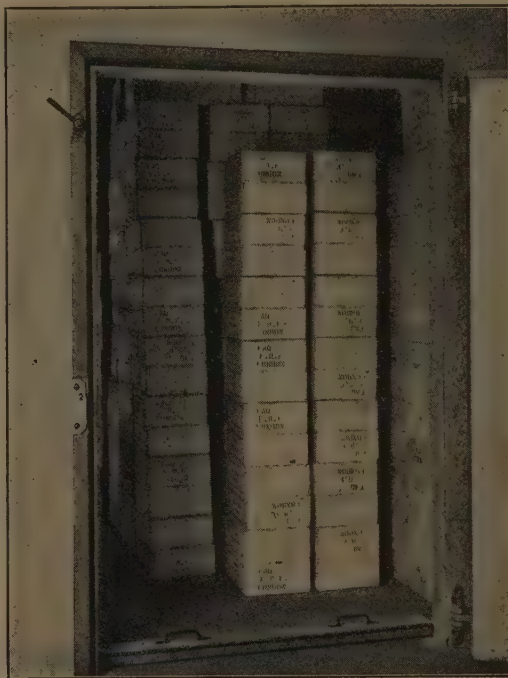
Empire Dried Fruit Traffic at Southampton Docks

INNOVATION BY SOUTHERN RAILWAY OF ENGLAND.

THE Southern Railway of England, who own and manage Southampton Docks, have given a lead to dock authorities by their recent introduction of new scientific methods for the destruction of insect

comprise Raisins, Sultanas, Prunes, Apricots, and other evaporated fruits.

The dried fruit tonnage for 1938 revealed a substantial advance on previous years, and the traffic is likely to increase still further with the exten-



Entrance to one of the chambers showing a parcel of dried fruit stacked for fumigation.

pests in imported dried fruits. Large quantities of this traffic are dealt with at Southampton Docks, of which South African produce forms the bulk; in fact, approximately 90 per cent. of the Union's exports to the United Kingdom are consigned via Southampton. These importations

sion of the area under cultivation in South Africa.

Attention has recently been given to the danger of infestation from grub which, in the course of a season, can develop and infest other similar commodities which may be stored in the same warehouse.

Fruit, upon discharge from ship, can now be placed in a special Southern Railway warehouse where it will, if desired, be subjected to a process of fumigation which destroys all stages of development of insect life, including the egg. This warehouse contains a number of chambers, each capable of storing about 3,500 boxes of dried fruit, and which can be separately fumigated with a mixture which has been vaporised through a special process. The agent used for this fumigation is ethylene oxide which, by a system of pipes, is fanned into and then withdrawn from the chamber in which the fruit to be treated is stored. The chemical is circulated at a pressure of 13 lbs. per square inch, and deals effectively with all stages of any insect life which may be present in the fruit or its packaging. The fumigant, which is extensively used for the elimination of pests from a wide variety of foodstuffs, also has exceptionally high penetrative qualities and remarkably effective powers as an ovicide. It eradicates not only the pest, but any larvae or eggs which may exist, and so ensures that the fruit delivered to the buyers shall be in a sound condition.

In the treatment of fruit, it is particularly valuable as it affects neither the color nor the quality of the fruit, while it leaves no residual odour or taste in materials which have been in contact with its vapors.

This new service, which will be provided for a small additional charge, will be of great benefit to the trade and save many hundreds of pounds now lost annually through the infestation of fruit.

It is hoped that appreciation of the new facilities at Southampton Docks will induce importers and merchants to increase still further the proportion of this traffic handled at the Southern England port.

The Southern Railway Company have given another example of progressive policy, and this new installation was recently shown to a party of leading members of the dried fruit trade, who had travelled from London as guests of the Southern Railway Company, when they were able to satisfy themselves of the effectiveness of the process. It has since been suggested that it will now be possible to offer buyers fruit guaranteed as free from any form of infestation.

CITRUS RECIPES.

Favourites With Everyone.

Because of the added attention being paid to the diet and health of the nation, the need for more fresh fruits in the diet is being emphasised. The following citrus recipes will no doubt prove useful to the busy housewife:—

Lemon Sago.

- 4 tablespoons sago
- 2 cups water
- 1 Lemon
- 2 tablespoons sugar
- 1 tablespoon golden syrup

Wash sago, and soak in the water 15 minutes. Boil till clear, stirring frequently. Add sugar, golden syrup, grated rind and juice of Lemon. Cook 2 minutes. Pour into wet mould, set in a cool place. Turn out on a glass dish. Serve with boiled custard or cream.

Orange Jumbles.

- ½ cup shortening
- 1 teaspoon grated Orange rind
- ½ cup butter
- ½ teaspoon salt
- 1 egg
- ½ cup Orange juice
- 1 teaspoon nutmeg
- 1 teaspoon Lemon juice
- ½ cup sour milk
- 3 cups flour

Cream shortening and sugar slowly; add beaten egg, Orange and Lemon juice and rind, beat thoroughly. Add sifted dry ingredients alternately with milk. Drop by spoonful on greased tins or cookie sheet. Bake in moderate oven (375 degrees) 15 minutes.

The PRINCIPAL Fruit Merchants and Exporters of SOUTH AUSTRALIA

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Specialising in Apple and Pear Export.

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Enquiries Are Invited by Advertisers on
This Page for Fruit for Export or Sale on
The Adelaide Market.

Market Notes and Prices

SYDNEY MARKET REPORT.

By Mr. L. T. Pearce, Market Representative of the Fruitgrowers' Federation of N.S.W.

DECREASING QUANTITIES OF FRUIT have been evident in the market during recent weeks. Tasmanian consignments of Apples and Pears have dropped to between 20,000 and 25,000 cases per week, whilst the bulk of the Coastal Navel Oranges and Mandarins appear to have been marketed.

This reduction in the quantity of fruit may have been fortunate, as the purchasing capacity of the public has given indications of not being very great. Apple values had been steadily decreasing as far as average sales were concerned, while arrivals were around the 40,000 mark and inferior types had been accumulating to a rather worrying extent. Navel Oranges at no time reached the low levels of previous years, but some anxiety was occasioned by the preponderance of large sized fruit, a drop in values being averted on several occasions by lighter consigning to the market.

The mildness of the early Winter recently gave place to cold frosty weather, and many retailers reported a general slackening in turnover. This was reflected in the attitude of retailers, who in most instances required selected counts of only the most approved varieties of fruit. Agents in turn, felt the position by having accumulations of Scarlet Pearmain, French Crab that were slightly colored, and Delicious that showed advanced maturity, while small Packham's Triumph and Winter Cole Pears had to be offered at accommodating prices.

Good Autumn rains provided citrus growers with a greater tonnage of Navel Oranges than was expected earlier in the year, but the crops were so very light in most instances that the public, rather than the fruit grower, obtained the benefit. This is explained by the prevailing custom of purchasing at 1/- per dozen, although this year a greater number of sales were made at 1/6 per dozen than is usually the case.

The Navel season is now well advanced, although there are heavy arrivals of large sizes from the irrigation area. Most of the other types of Oranges, such as Joppa and White Siletta, have also been marketed, these receiving satisfactory request, because of their smallness in size as compared with the average Navel.

At no time have Lemons reached the usual Winter level, the comparative lightness of the crop enabling growers to cease forwarding as market supplies cleared slowly. Some reports to hand, indicate that Lemons may be more plentiful in the Spring and early Summer. Mandarins also did not provide their usual problems through oversupply, and in fact seldom before have they been so scarce, the resultant prices being satisfactory.

Grapefruit recently failed to clear as quickly as was necessary, and the assistance of barrowmen was obtained in an endeavor to clear accumulated stocks. Prices, however, as with other citrus have not reached the low levels of previous years.

Export of citrus has proceeded, the total in various sized cases being as follows: — Oranges 34,520, Lemons 7,720, Grapefruit 1,389, Mandarins 33. The New Zealand proportion of export has been as follows:—Oranges 29,267 (1½ bushel), Lemons 7,199, Grapefruit 1,206 cases.

Prices.

Grapefruit, N.S.W.: Local 2/- to 4/-, few special 5/- to 11/- per bushel;

inland 3/- to 6/-, few special 7/- to 14/-.

Lemons, N.S.W.: Local 5/- to 6/- per bushel; inland 6/- to 8/-; plain grade 3/- to 4/-.

Mandarins, N.S.W.: Emperor 6/- to 9/-, few 10/-, small lower, per bushel; Thorny 3/- to 5/- per half bushel.

Oranges (Navels), N.S.W.: Counts 56-72, local and inland 5/- to 6/- per bushel; 88-96, do. 6/6 to 8/-, few 9/-; 100-150 do. 7/- to 8/6, few 10/-; 163-252, do. 6/- to 7/-, few 8/-.

Two bushel crates inland, 11/- to 13/-, plain from 10/-.

Other Oranges: 5/- to 6/6 per bushel.

Apples.

Apples from Tasmania now comprise Democrat and Scarlet chiefly, large quantities of French Crab, Crofton and Sturmer, with reducing quantities of Granny Smith, Cleo., Jonathan and Rome Beauty. Grannies from N.S.W. are plentiful, particularly "good" grade. Delicious are being released steadily.

Prices.

Buncombe (N.S.W.) 8/- to 12/- per bushel; Cleo. (Tas.) 6/- to 9/-; Crofton (Tas.) 8/- to 11/-; Del. (Tas. 7/- to 12/-, extra fancy to 14/-); (N.S.W.) 8/- to 14/-, few ex cool store up to 17/-; Dougherty (N.S.W.) 8/- to 12/-; Demo. (Tas. 6/- to 8/-, few 9/-); (N.S.W.) 6/- to 9/-; French Crab (Tas.) 2/6 to 7/-, green to 8/-; Granny (Tas. 7/- to 12/-), (W.A.) 8/- to 12/-, (N.S.W.) 7/- to 13/-, few ex cool store up to 14/-; Jon. (Tas.) 7/- to 11/-; Romes (Tas. 6/- to 10/- (W.A. 6/- to 10/-), (N.S.W.) 6/- to 12/- per bushel; Sturmer (Tas.) 4/- to 7/-; Scarlet (Tas.) 3/- to 7/-, few 8/-; Yates (N.S.W. and W.A.) 6/- to 9/-; small and "D" grade lower.

Pears.

These are now much less plentiful, Packham having good request and prices of all types have been maintained.

Prices.

Bosc (N.S.W.), 6/- to 9/- per bushel; Glou Morceau (Vic. and Tas.), 5/- to 9/-, few 10/-; Giblin Seedling (Tas.), 5/- to 9/-; Jos. (Vic. and Tas. and N.S.W.), 6/- to 12/-; Packhams (Vic. and N.S.W.), 7/- to 14/-; Winter Cole (Tas. and N.S.W.), 7/- to 13/-; Winter Nelis (Tas.), 5/- to 11/-; small and "D" grade lower.

Bananas: Regulation graded, first quality fruit. Six, seven, eight and nine inch, 12/- to 20/- per tropical case.

Custard Apples: (Q'land.), 5/- to 7/- per half bushel.

Passion Fruit: These have been fairly plentiful with values firm at around 4/- to 5/- during the past four or five weeks. Processors and interstate buyers have operated at around 4/- and 5/-, with country order fruit realising 7/- and occasionally 8/-.

Papaws: (Q'land.), 6/- to 12/-, few higher per tropical case.

Pineapples: (Q'land.), 7/- to 11/-, few higher, per tropical case.

Strawberries: Vendors of this fruit recently collaborated and decided with the assistance of jam manufacturers to clear stocks each day at a minimum price. The results of this collaboration should be beneficial to producers, and the public in turn should always receive fresh, sound fruit. Prices:

(Q'land.), 2/- to 3/6, few 4/- per tray, 6/- to 10/- per dozen boxes; (N.S.W.), 10/- to 15/- per dozen punnets.

Tomatoes: The Queensland growers now have the market to themselves, and during the past fortnight, values improved to 7/-, this being the best price obtained for green fruit for some months. Colored fruit at this time of the year is always difficult to secure, and repacks in consequence realised from 10/- to 12/-.

Prices: (N.S.W.), 3/- to 6/-, few higher per half case; (Q'land.), 5/- to 7/-, few 8/- per half bushel; (Repacked), 8/- to 10/-, few 12/- per half bushel.

VICTORIA.

Melbourne (1/8/39). — Wholesale Fruit Merchants' Association prices—Per Case: Apples, eating, 6/-, 10/-, choice higher; cooking, 4/-, 7/-.

Bananas, double case, 12/-, 20/-, few higher. Grapefruit, 4/-, 8/-, selected higher. Lemons, 5/-, 9/-, selected higher. Mandarins, 6/-, 11/-, selected higher. Oranges, 4/6, 11/-, selected higher. Passionfruit, 5/-, 11/-, choice higher. Papaws, 7/-, 14/-.

Pears, 4/-, 10/-, choice higher. Pineapples, 8/-, 12/-.

Tomatoes, W.A., half case, green, 5/-, 8/-, ripe higher; do., S.A., best, ripe, to 14/-, few higher. Celery, 7/-, 11/-, choice higher.

Queensland Committee of Direction of Fruit Marketing prices: —

Bananas, green, double case, 8's and 9's, 16/-, 19/-; 7's, 14/-, 17/-; 6's, 12/-, 15/-, few special 1/- to 2/- higher.

Pineapples, 8/-, 12/-; few higher. Papaws, 7/-, 14/-.

SOUTH AUSTRALIA.

During the month of July vegetable prices were rather depressed, owing to an abundance of supplies. Prices were a direct contrast to those ruling early in the season, when the extreme hot weather restricted supplies. Ideal growing conditions following the heat wave resulted in the present position.

Potatoes and Onions were in short supply, and prices for these commodities rose during the month to 18/- to 20/- cwt., and 30/- to 32/- cwt. respectively. A slight easing, however, was experienced towards the end of the month.

Fruit prices remained fairly steady during the month, but Apples now being drawn from cool store showed further increase in price.

Hereunder is a list of quotations ruling on 31/7/39.

French Beans, 8/- to 9/- doz. lb.; Beetroot, 1/- doz.; Brussels Sprouts 3/- doz. lb.; Cabbages, 2/- to 3/- doz.; Carrots 1/6 doz. bchs.; Cauliflowers 3/- to 4/- doz.; Celery, 3/- doz. hds.; Leeks, 2/- doz.; Lettuces, 1/- doz.; Onions, 28/- to 30/- cwt.; Parsnips, 1/6 d. bchs.; Peas, 10/- to 12/- bush.; Potatoes, 19/- cwt.; Rhubarb, 1/6 d. bchs.; Tomatoes, 10/- to 12/- ½ case; Trombones, 4/- to 5/- cwt.; Turnips, 1/- doz. bchs.; Swedes, 1/6 doz. bchs.

Apples: G.S., 9/- case; Del., 10/- case; Jons., 10/- case; Buncombe, 7/- case; Romes, 7/- case; Londons, 7/- case; Statesman, 8/- case.

Leading Agents in the

BRISBANE FRUIT MARKETS

Highest Prices. **A. S. BARR** Prompt Returns.

FRUIT EXCHANGE, BRISBANE, QUEENSLAND. Wholesale Fruit Merchant and Growers' Agent.

A Trial Solicited. Returns Speak for Themselves. Shipping No. 19. Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons Estab. 1892
BRISBANE, B.12. GROWERS' AGENTS.

Shipping No. 12

Bankers: National Bank of Australasia, George St., Brisbane.



CONSIGNING NO. 22 BRISBANE
SECTIONS 5, 41, & 42 ROMA ST. MARKETS

Do not run any Financial Risk with your Fruit but Consign it to

HEDLEY GEEVES PTY. LIMITED

Telegraphic Address: "Apples, Brisbane."

(Hedley Geaves, Managing Director)

Registered Shipping No. 6.

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BRISBANE

SELECTED AGENTS FOR:

Phones: Office B 6218. Residence J 3445.

Established 1911.

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd.

Tasmania: State Fruit Advisory Board.

Harcourt Fruit Supply Co. Ltd.

New South Wales: Griffith Producers' Co-op. Co. Ltd.

Victorian Central Citrus Assn. Ltd.

Badlow Packing House Co-op. Soc. Ltd.

Bananas, 22/-, 24/- case; Lemons, 5/-, 6/- case; Coconuts, 2/6 doz.; Mandarin, 10/-, 12/- case; Navel Orange, 6/-, 8/- case; Grapefruit, 6/-, 8/- case; Pineapples, 12/-, 15/- case.

QUEENSLAND.

Brisbane (20/7/39).—Messrs. Clark & Jesser report as follows:—For the past few weeks Apple supplies have been well maintained, and there has been little alteration in values. Present prices are:—Apples: Jons., 2½ to 2½, 11/- to 12/-, smaller sizes 7/- to 9/-, other colored Apples 10/- to 11/-; G.S., 10/- to 12/-; Pears: W.C., 11/- to 14/-, small sizes 7/- to 9/-, other varieties of Pears, 8/- to 10/-; Oranges: Navels, 9/- to 10/-; Common 7/6 to 8/-; Mandarins: 6/- to 7/-; Lemons: 7/- to 9/-; Passion-fruit: 10/- to 11/-; Custard Apples: 3/- to 3/6 half case. Pineapples: 5/- to 6/- case. Tomatoes: 6/- to 7/-.

Brisbane (10/7/39).—Messrs. W. Arkell & Sons advise prices as follows: Apples: Jonathans, 2½ to 2½, 10/- to 12/-, 2½, 8/-; Croftons, 2½ to 2½, 9/- to 12/-; Cleos., ½ to ½, 10/-; S.P.M., ¼ to ½, 5/- to 8/-; Dem., ½ to ½, 8/- to 9/6, 3 in. to 3½, 6/- to 7/6; S.T.P., ½ to ½, 7/- to 8/-, ½ to ½, 5/- to 6/-; G.S., ½ to 3 in., 10/- to 12/-; Pears: W.C., ¼ to ½, 12/- to 14/-; ½, 10/- to 11/-; 2 in., 8/- to 9/6.

Choice quality fruit moving freely. Small sizes slow. S.T.P. and Dem. meeting better demand.

NEW ZEALAND.

Dunedin (20/7/39).—Messrs. Reillys Central Produce Mart Ltd. reports as follows:—Fairly heavy supplies of Apples are arriving, and good quality lines are netting fair values, with a limited demand for lower grade fruit. Dessert Pears have a satisfactory demand at higher values.

Australian Navel Oranges were distributed during the week. The fruit was in excellent condition, and met with a keen enquiry. Further supplies will be available next week.

Australian Lemons have a fair enquiry, and a further shipment is due next week. Ripe Bananas have an excellent enquiry. Small consignments of New Zealand Marmalade Oranges continue to come to hand, and are netting satisfactory values.

Prices (Per Case): Australian Grapefruit, 20/- to 25/6; Australian Lemons, 25/6 to 26/6; Australian Navels, 18/- to 22/-; Island Oranges, Repacks, 14/6 to 20/-; Marmalade Oranges, 16/-; Bananas, Ripes, 22/6. Apples: Jons., 7/- to 10/-; Cleos., 7/- to 9/-; Del., 7/- to 10/-; G.S., 7/- to

10/-; Tasma, 6/- to 8/-; Sturmers, 6/- to 10/-; Ballarats, 6/- to 7/½; R.B., 5/- to 7/-; Lord Wolsely's, 5/- to 7/-; small grades, 3/- to 4/6; Cooking Apples, 4/6 to 6/-; Pears: Winter Coles, 8/6 to 10/6; Winter Nelis, 8/- to 10/-; P. Barry, 8/-; Cooking Pears, 4/6 to 6/-.

S. AFRICAN FRUITS.

Committee to Investigate Overseas Marketing.

A Committee has been appointed by the South African Union Government to investigate the overseas marketing of South African fruit. The chairman, Mr. A. J. Bosman, under-Secretary for Commerce and Industries, and Messrs. F. J. du Toit, Secretary of South Africa House, A. T. Brennan, Union Trade Commissioner for the United Kingdom, and Mr. W. F. C. Morton, Secretary, recently toured Scotland and England, the Scandinavian countries, Germany, Holland, Belgium and France.

HORTICULTURAL SCHOLARSHIP.

£48 per Annum for Three Years for a Bright Boy.

A competitive examination will be held about September under the auspices of the Cronin Memorial Horticultural Scholarship. This scholarship carries a grant of £48 per annum for three years, plus a three years' course of training in horticulture. Entrants should have a love of horticulture, as the training is desired to fit boys for a commencement in a life's career in that profession. Included in the subjects for the examination will be English, elementary mathematics, drawing and general knowledge, including history and geography, as prescribed for Grade VIII. in elementary schools (or its equivalent).

Boys (not under 13½ nor over 16½ on January 1, 1940, attending any registered school in Victoria can enter. Further particulars may be obtained from the Hon. Secretary of the Scholarship Committee, Mr. R. E. Boardman, 528 Collins-street, Melbourne, or from the Education Dept., Melbourne.

For the purpose of co-operating with the Tasmanian State Fruit Board to improve the marketing of fruit, the Board has invited recommended agents handling Tasmanian fruit in Sydney and Brisbane to become members of the panel which it is proposed to form.

MOTOR NOTES

Battery Saving

New Device Invented.

TO PREVENT the battery of a car that has been left for several hours after dark, running down, it has become a fairly usual practice to fit so-called parking lamps. These consist of a single lamp showing a white light to the front and a red one to the rear of the car. This type of device, although it does effect a saving of current, is not legally in order, for the regulations stipulate that any car, whether running or parked, must show at least two white lights to the front and one red light to the rear.

A simple and effective device has been placed on the market in England to meet all legal requirements, while reducing the current consumption of the three (sometimes four) lamps to a minimum. It consists essentially of a fixed resistor and a toggle-type shorting switch, these being mounted in a small metal box

from which a length of twin flex is brought.

When the car is to be parked, the switch is operated to open-circuit the resistor, which is wired in series with the lead from the switchboard to the side and tail lamps, and so cut down the current. On the model tested, the current was reduced from approximately three to one amp., without making the lights too dim to serve their useful purpose when the car is parked.

The unit is built in a stove-enamelled metal box fitted with a mounting tab having a number of alternative holes, and can thus be bent to suit any convenient mounting position.

This device, known as the legal Parking Attachment, can be fitted in a few minutes simply by breaking the lead from the switchboard and connecting the flex from the device to the two sides of the break.

Road Safety

Recently, six veteran drivers had a questionnaire submitted to them on good driving and safety, and these are the suggestions offered:—

Never turn your head when talking to occupants of the car.

Do not take your hands from the wheel to make gestures.

Keep your mind on the driving.

Watch the cross roads. While you may have the right-of-way, the other fellow may not stop.

Regulate your car speed according to road traffic conditions.

Check speed before entering turns—that is, slow up.

Make use of your rear-vision mirror and keep it in proper position. In overtaking traffic on the road and when passing slower-moving vehicles, use your rear-view mirror and be sure the lane is clear before you turn out to pass other cars.

Do not pass cars on a grade or blind turns, and stay on your own side of the road at all times.

If a tyre goes flat while driving, avoid using the brakes until the car is travelling at a moderate speed.

Do not attempt to make your destination when tired or sleepy.

It is bad practice to read street addresses while driving a car. Come to a full stop at the kerb to look for a street number.

Do not drive on the wrong side of the road to prevent what you may think will be an accident.

Keep the windscreen clean. Do not attempt to drive with a small, clear spot for vision.

Do not rely too much on your brakes when making stops. Let the engine help to brake down the car speed. On wet roads do not disengage the clutch until the speed is below ten miles an hour. This will help to avoid skidding.

Learn by trial what your car will do when skidding.

Keep the radio volume low enough to hear railroad signals, ambulance or fire sirens and other car horns.

Do not depend solely on the rear-view mirror when driving in reverse. Look back to see where you are going.

See that your brakes, lights, and steering gear are in proper adjustment.

Do not over-estimate your own ability or the ability of others.

OVERLOADING TRUCKS.

Dangerous and Uneconomical.

Loading properly, careful driving, and the avoidance of over-speeding are essentials in the care of a truck.

One of the main factors contributing to loss of time and uneconomical operation is over-loading. Every truck manufactured has a rated gross capacity for every model, and above this capacity there is an allowance known as the margin of safety, which, many operators trade on, and grossly abuse.

Believing that it pays to over-load a truck, they overlook the fact that the cost of maintenance and breakdowns rapidly eats up the small extra profit gained and greatly reduces the economical life of the truck.

The safety margin is to meet unusual conditions caused by rough roads, sudden jolts, heavy gradients, and other factors. By excessive over-loading, this margin is reduced to a minimum, if not obliterated altogether.

Even though parts do not break at once, they are so weakened that the failure and fatigue point is advanced far more rapidly than would have been the case under normal use.

SPECIAL NOTICE TO FRUITGROWERS

All Members
under
Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SON (26).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
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Correspondence is invited by the Association.

Equipping the Poultry Farm

Types and Sizes of Houses

It would be impossible to enumerate every type and size of housing in one book as the designs are innumerable. Most Departments of Agriculture have drawings, sizes, capacity and general advice upon construction that are available upon application. In general, it can be stated that a good poultry house must provide comfortable quarters in which fowls can be kept in a convenient and economical manner. Such provision should include temperature regulation, ventilation, location, where to face, floor space, perching equipment, feeding and laying accommodation and such like.

With regard to type, this is affected by climatic and other conditions. Fowls do well in any type of house that provides comfortable surroundings for them, but the progressive operator should consider well the saving of time and labor in efficiently managing his farm and so plan his housing that extensions can be made without interfering with the principle of easy and economical working.

Construction.

Without attempting to quote upon the relative values of brick, cement bags, galvanised iron or other building materials which are subject to financial arrangements, all houses should have roofs high enough to allow the operator to work in comfort. They must be well ventilated, but free from draughts. The present trend in long sheds is to have par-

titions between separate pens to protect against cross draughts.

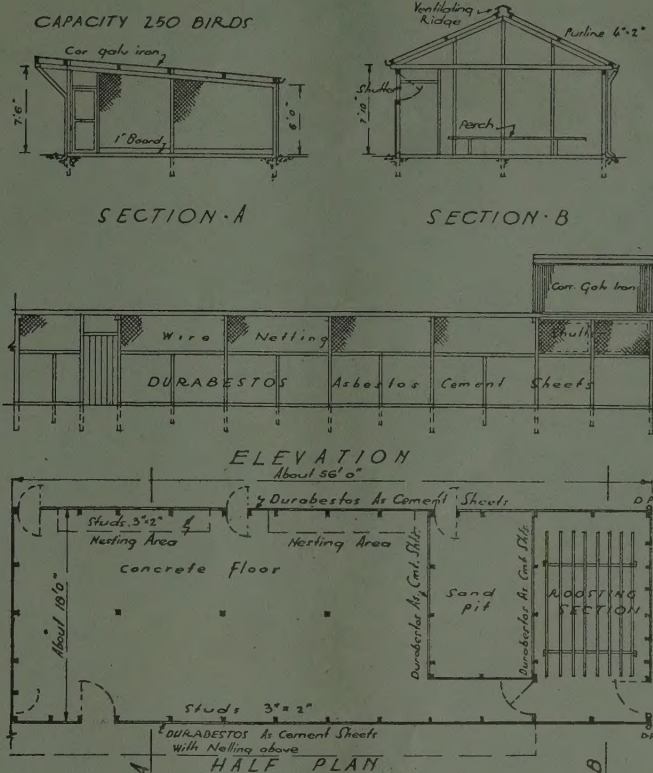
The sheds must be deep enough to allow the birds to get away from exposed parts in bad weather, either wet or hot. The direction of facing is changing. At one time all sheds were built facing east. Now many persons are building to face north in the belief that this is an advantage in the Winter by allowing the birds to get more sunlight. This is one of the conditions that are dependent upon geographical and weather conditions and the builder must recognise local requirements. But whatever the type or size adopted, sheds should have the back and end walls towards the worst weather quarter.

Except in certain specified areas and under certain conditions, concrete floors should be supplied. They are safe and permanent, allow periodical cleaning of the houses, prevent rat problems and can assist to control disease. Sweating and roof damp should be watched and litter kept clean.

Overcrowding must be avoided and sufficient shedding provided. This too applies to feeding equipment, nesting, watering and other services. Unfortunately too much trouble is caused on poultry farms by operators not providing sufficient accommodation for their stock or increasing their flocks too large to allow accommodation without crowding. Housing is certainly expensive, but so is mortality or disease.

Plan of a Laying Shed

Capacity: 250 Birds



The above illustration shows plan and elevation of the various sections of a Laying Shed, with a capacity for 250 birds.

CARE IN FEEDING.

Effect on Egg Production.

CORRECT FEEDING, not only the class of feed given, but the manner in which it is fed to the birds is extremely important. Too often the feed is hurriedly thrown to the birds, as if feeding was a task to be completed as quickly as possible.

It is best to put down a certain quantity of food, and then stand by for a few moments to gauge the appetites of the birds. If they show keenness (but not otherwise) give more food, or else give the food all

round and then return to see if more is required.

Experts declare that this method should be adopted at both morning and evening meals where the wet mash system is employed, the art of feeding being to give just as much as the birds will eat at each meal without having any food lying about.

In some instances where dry mash is used a partial feed of wet mash is given during the day. Care is necessary not to feed too heavily with the wet mash, because this will result in the birds becoming surfeited and thus bring about an unhealthy condition.

GREENSTUFF REDUCES FEEDING COSTS.

Valuable Vitamin Content.

POULTRY FARMERS are repeatedly reminded how essential an adequate supply of greenstuff is on the farm. A liberal ration of this reduces feeding costs, because it can be grown on the farm. Other advantages are that greenstuff has a high fibre content, is rich in Vitamin A, contains Vitamin E & G, is rich in minerals and pigment.

When cured under certain conditions, materials such as lucerne, chaff and meal, often substituted for green food, retain the same qualities to a lesser degree than does freshly cut greenstuff.

Minerals in green crops assist the digestive system to function to its fullest capacity, and, passing into the blood stream, are beneficial to all vital organs.

Vitamin E is not important to the laying flock, but is essential for breeding birds. A continued deficiency of this vitamin will result in sterility.

Vitamin G is important for growth and the hatchability of eggs. This once again illustrates the necessity of supplying greens to the breeding birds, and the value of giving greens to all young birds. Experiments show that a combination of greens and milk, in some form, gives better results than if either food is fed separately.

Greenstuffs can be used as a preventive, and also a cure for some vices, such as feather plucking, feather eating, and cannibalism.

In practically every outbreak of vices for some years, greenstuff has either been sparingly fed or some substitute has been supplied. This shortage of greens was caused by continued dry weather, and the substitute was lucerne, the cost of which was high and the poultry farmer endeavoured to avoid its use.

This year, because of an abundance of greenstuff, feather plucking is al-

most unknown. There are isolated instances of feather plucking where greenstuff has not been supplied, however.

A start in the feeding of young succulent greens to chickens should be made at the age of one week, giving as much as the chickens will eat once or twice a day, the amount being increased as the chickens get older.

The amount of greenstuff to be fed to a flock of layers is a question frequently asked, and the answer is 5 lb. or 6 lb. to every 100 fowls or upwards to one quarter of the daily ration. These figures should act as a guide to the poultry keeper in planning the area of land necessary to grow sufficient greens for a continuous daily supply.

"THE POULTRY BREEDERS' GUIDE AND YEAR BOOK."

It is not generally known that the poultry industry ranks fourth in the primary industries of the Commonwealth. The annual value of poultry and eggs to the Commonwealth is officially stated at £10,804,196. This information, together with many other items of interest regarding the poultry industry is set out in the 100 pages of the "Poultry Breeders' Guide and Year Book" for 1939, just issued.

This publication is well printed and illustrated, and contains several pages of colored pictures of various breeds of poultry.

In addition it contains articles on the following subjects of interest to poultry breeders:—Housing of Poultry; Methods of Feeding; Chart of Diseases and Methods of Control; Incubating and Brooding; Monthly Operations on the Poultry Farm; Sexing and Rearing of Chickens; also articles on Leading Commercial Breeds and the Marketing, Packing and Grading of Eggs, Table Poultry, Egg Pulp, etc.

Copies at 1/- each may be obtained from newsgagents or direct from the publishers, Box 1944, G.P.O., Melbourne, upon application including 1/2 which includes postage.

Do You Keep Poultry ? if so—

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World Citrus Production

LAST DECADE SHOWS INCREASE OF 10 MILLION BOXES PER YEAR.

U.S.A. Produces Nearly One Half of the World Citrus Crop, but only Exports 10 per cent.

The United Kingdom is the Largest Importer of Citrus Fruits.

WORLD CITRUS PRODUCTION has increased at the average rate of about 10 million boxes per year during the past decade and probably will continue to expand in the next 5 to 10 years, states a recent publication by the United States Department of Agriculture.

World Orange production (including Mandarins and Tangerines) has increased at the average rate of about 8 million boxes per year during the past decade. The United States, Brazil, Palestine, Japan and the Union of South Africa have been the principal contributors to this expansion. Orange production in Spain, an important Orange exporting country, has declined in recent years.

The expansion of world Grapefruit

production also has been at a very rapid rate. In the United States, the principal producing country, production during the past 10 years has more than trebled, while in Palestine and the Union of South Africa, the increase has been striking.

World Lemon production reached a peak in 1932, but has since declined. The recent sharp decline in Italy more than offsetting the rapid expansion in the United States.

The production of Oranges in the United States, has about trebled in the past 20 years, Grapefruit production has increased nearly sevenfold, and Lemon production has more than doubled. Although exports of citrus, as a whole, also have increased in recent years, they have not kept

pace with the expansion in domestic production.

The increase in United States Orange exports in the past decade has been at about the same proportional rate as that of production.

Lemon exports have increased at a slightly faster rate than production. Exports of Grapefruit, on the other hand, have failed to keep pace with production, particularly in the last 5 years.

In no case was the absolute increase in exports equal to the absolute increase in production, and, as a consequence, consumption of citrus fruits has increased sharply in the past two decades.

The sharp increase in consumption of citrus fruits during the past 20 years resulted in part from an increase in domestic demand and in part from the declining prices which accompanied the sharp increase in production. It appears that the domestic demand for citrus fruits increased sharply during the 1920's, declined during the depression period of the early 1930's, but regained part of this loss in the last 5 years.

In general, foreign demand for United States Oranges and Grapefruit has declined in recent years, largely as a result of trade restrictions and increasing competition from foreign produced citrus. There is some evidence that foreign demand for American Lemons is increasing.

Though the United States produces nearly one-half of the world's citrus crops, not more than 10 per cent. of the annual production is usually exported.

In recent years exports of Oranges from Spain, Palestine and Brazil have exceeded those from the United States, while exports of Lemons from Italy and Spain and of Grapefruit from Palestine have been greater. For most of these countries, the export market has provided an important outlet for citrus crops.

Because of the prospective continued expansion of production of Oranges and Grapefruit in Palestine and the Union of South Africa, it is likely that exports from these areas will increase sharply in the next few years.

Exports of Oranges from Spain declined sharply during the period of civil war, but no information is available as to the trend in the immediate future.

The United Kingdom is by far the leading importer of citrus fruits, although Germany, France, Canada, the Netherlands and Belgium also are important. These six countries usually account for about 90 per cent. of total citrus imports.

In recent years an increasing proportion of total citrus imports into the United Kingdom have come from Empire sources, particularly Palestine and the Union of South Africa. Total imports of citrus into Germany have declined sharply in recent years, although those from Italy have maintained a stable level and increased in the case of some fruits. Canada is the principal outlet for United States citrus fruits and has become relatively more important in recent years when exports from the United States to the United Kingdom have tended to decline.

CITRICULTURIST VISITS U.S.A.

Mr. R. J. Benton's Tour.

Mr. R. J. Benton, special fruit instructor in the N.S.W. Department of Agriculture, left by the Mariposa on Friday for a nine months' tour of citrus-growing areas in the United States.

Mr. Benton's tour has been arranged following a decision of the Australian Agricultural Council. His investigations will be of a general nature, covering all aspects of the citrus industry, from bud selection to packing and distribution. He will spend about four months in California, and will visit also Arizona, Texas, and Florida, the other citrus growing States.

In Texas, citrus production is a much more recent development than in the other States, and Mr. Benton hopes to find that the Texans have profited by the experience of others and have adopted only the most modern methods.

The tour is being financed by the Commonwealth Government and by the States in proportion to their citrus production.

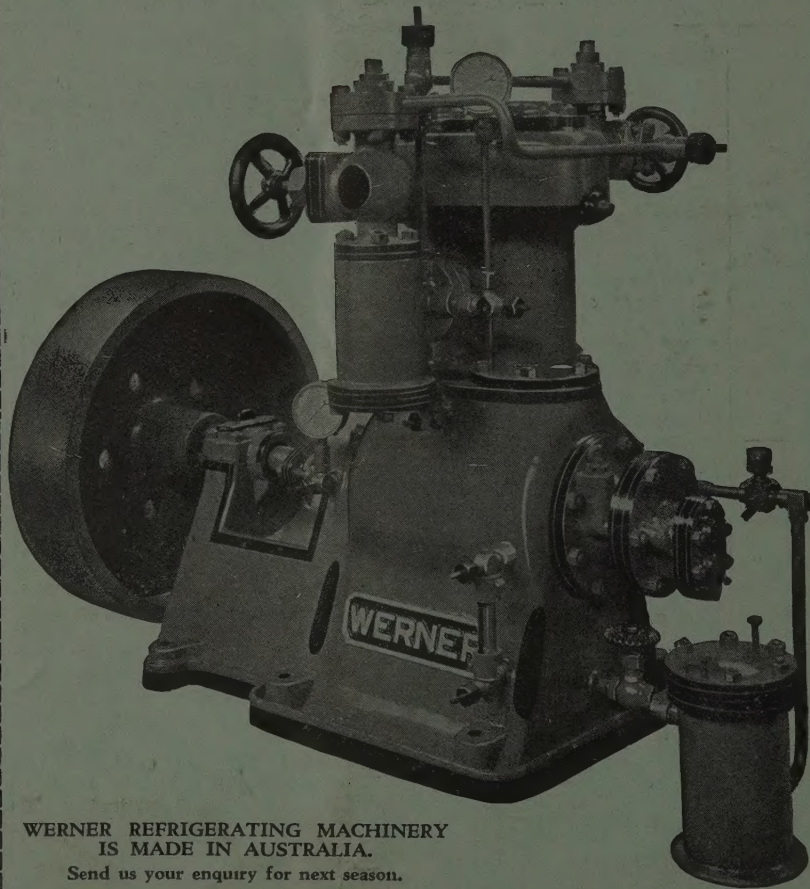
"VEGETABLE CULTURE."

We are in receipt of a particularly interesting Bulletin (No. 12) from the Tasmanian Department of Agriculture on vegetable culture, dealing with the propagation by seed, soil sterilisation and control of disease, soils and soil preparation, rotations, watering, cultural details on growing vegetables, control of pests, slugs and snails, vitamins in foods, seed per acre, seed reliability, seed germination and seed longevity, etc.

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